IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

TERRAN BIOSCIENCES, INC., *et al.*
Plaintiffs,

v.

COMPASS PATHFINDER LIMITED, EKATERINA MALIEVSKAIA, M.D., and GEORGE GOLDSMITH
Defendants.

UNDER SEAL

Civil Action No. ELH-22-1956

MEMORANDUM OPINION

This contentious trade secrets case concerns the substance psilocybin and two biotechnology companies: Terran Biosciences, Inc. ("Terran") and Compass Pathfinder Limited ("Compass"). On August 5, 2022, Terran, a company incorporated in Delaware with its principal place of business in New York, filed suit against Compass, a publicly traded company incorporated in England and Wales. *See* ECF 1. Scott Thompson, Ph.D., formerly Professor of Physiology and Chair of the Department of Physiology at the University of Maryland, Baltimore, School of Medicine joined the lawsuit as a plaintiff on June 2, 2023. ECF 48 (Second Amended Complaint). Then, on February 6, 2024, with the filing of the Third Amended Complaint (ECF 81, "TAC"), the University of Maryland, Baltimore ("UMB" or the "University") also joined the case as a plaintiff.

Initially, Terran sued only Compass. However, in the Fourth Amended Complaint (ECF 199, "FAC"), filed on July 11, 2025, plaintiffs added two defendants: Ekaterina Malievskaia, M.D. and her husband, George Goldsmith. They are co-founders of Compass and former Compass executives. Notably, they were added as defendants only after they left their positions of

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employment at Compass. For convenience, I will sometimes refer to the three defendants collectively as "Compass."

The FAC, which is the operative complaint, is somewhat of a "kitchen sink" pleading, containing eleven counts. *See* ECF 199. In particular, plaintiffs assert claims for misappropriation of trade secrets under the Defend Trade Secrets Act ("DTSA"), 18 U.S.C. §§ 1831 *et seq.* (Count I); misappropriation of trade secrets under the Maryland Uniform Trade Secrets Act ("MUTSA"), § 11-1201 *et seq.* of the Commercial Law Article ("C.L.") of the Maryland Code (2013 Repl. Vol., 2025 Supp.) (Count II); unfair competition (Count III); detrimental reliance/promissory estoppel (Count IV); unjust enrichment (Count V); quantum meruit/implied-in-fact contract (Count VI); fraudulent misrepresentation (Count VII); negligent misrepresentation (Count VIII); fraudulent concealment (Count IX); constructive fraud (Count X); and breach of contract (Count XI).

Plaintiffs allege, *inter alia*, that Compass misappropriated their "Psilocybin Trade Secrets," which pertain to a mechanism to mitigate the hallucinatory effects of psilocybin while preserving its therapeutic, antidepressant benefits. Plaintiffs characterize their trade secrets as "interrelated, combination trade secrets," which they define as follows, ECF 325 at 25:



According to plaintiffs, Compass misappropriated the Psilocybin Trade Secrets on August 29, 2019, when Compass filed its U.S. Provisional Patent Application No. 62/893,611. ECF 321-63 ("'611 Application" or "'611 Patent Application"). The '611 Patent Application is titled

"Methods of Co-Administering 5-HT2A Antagonists/Inverse Agonists and Psilocybin." *Id.*; *see also* ECF 304-84.

Defendants have moved for summary judgment on all counts, asserting multiple grounds. ECF 304 (sealed); ECF 314 (redacted) (the "Motion"). The Motion is supported by 111 exhibits totaling 4,416 pages. *See* ECF 304-2 through ECF 304-112 (sealed); ECF 314-2 through 314-112 (redacted). In sum, defendants argue that plaintiffs have failed to identify the alleged trade secrets; that the alleged trade secrets were generally known in the field and not secret; that plaintiffs did not take reasonable measures to maintain the secrecy of the information in issue; that defendants did not misappropriate the alleged trade secrets; that plaintiffs cannot prove that the alleged trade secrets derive independent economic value from their secrecy; and that plaintiffs' claims for damages are based on flawed theories and lack adequate factual predicates. *See* ECF 304.

Plaintiffs oppose the Motion. ECF 325 ("Opposition") (sealed); ECF 339 (redacted).[1] The Opposition is supported by 116 exhibits totaling 6,057 pages. *See* ECF 321-1 through ECF 321-116 (sealed).[2] In sum, plaintiffs assert that this is a "factually intensive case that requires trial, not

[1] In the same filing, plaintiffs also lodged a cross motion for summary judgment with respect to Compass's counterclaims. (ECF 325 at 53). But, in light of the Court's Memorandum Opinion and Order of December 19, 2025 (ECF 326, ECF 327), granting plaintiffs' motion to dismiss the counterclaims (ECF 229), plaintiffs withdrew their cross motion. *See* ECF 341.

[2] The parties submitted some duplicate exhibits. *See, e.g.*, ECF 304-2 (Dr. Frederick Barrett Opening Report) with ECF 321-3 (same); ECF 321-39 and ECF 67-17; ECF 321-93 and ECF 304-59. However, I will ordinarily cite to only one exhibit. Moreover, I will identify an exhibit at least once, usually when it is cited for the first time.

summary judgment." ECF 325 at 16.[3] Further, they complain that defendants "ask the Court to wade through numerous disputes of material fact, disregard the competing testimony of expert witnesses, and improperly resolve competing inferences in Defendants' favor." *Id.* Defendants replied. ECF 351 ("Reply") (sealed); ECF 368 (redacted).

The parties have also filed multiple motions challenging numerous expert opinions. Specifically, defendants have moved to exclude all opinions of plaintiffs' damages expert, Dr. Gareth Macartney (ECF 302), as well as certain opinions of plaintiffs' technical experts, Dr. Frederick Barrett and Dr. Joshua Woolley. ECF 308. Likewise, plaintiffs have moved to exclude some opinions of defendants' damages expert, Dr. DeForest McDuff (ECF 320), and various opinions of defendants' technical expert, Dr. Bryan Roth. ECF 322.[4]

I need not resolve the motions concerning experts in order to resolve the Motion.[5] Moreover, no hearing is necessary to resolve the Motion. *See* Local Rule 105.6. For the reasons that follow, I shall deny the Motion.

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[3] Throughout the Memorandum Opinion, the Court cites to the electronic pagination. However, the electronic pagination may not correspond to the page number imprinted on a particular submission.

[4] The Court held hearings on the expert motions, pursuant to *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993), on August 18, 2026, and August 19, 2026. The expert motions will be addressed in a separate opinion, which is forthcoming.

[5] The parties have had numerous discovery disputes. With two exceptions (ECF 196, ECF 224), discovery disputes were addressed by Magistrate Judge Crawford. *See* ECF 225 (Order of August 12, 2025, referring discovery disputes to Judge Cawford). Defendants' objection to Judge Crawford's ruling concerning spoliation is pending. *See* ECF 396.

I. Factual and Procedural History[6]

Psilocybin is a hallucinogenic compound found in mushrooms. ECF 304-13, Carhart-Harris Study, at 2. It is also a Schedule I controlled substance.[7] By 2016, the therapeutic potential of psilocybin had begun to attract meaningful attention in fields related to mental health and addiction. *See id.* at 3. In May of that year, Dr. Robin Carhart-Harris published a study titled *Psilocybin with Psychological Support for Treatment-Resistant Depression: An Open-Label Feasibility Study*. *Id.* at 2. There, he reported "preliminary support for the safety and efficacy of psilocybin for treatment-resistant depression." *Id.* In his study, Carhart-Harris explains, *id.*:

> Psilocybin is a naturally occurring plant alkaloid found in the *Psilocybe* genus of mushrooms. Psilocybe mushrooms have been used for millennia for healing purposes, and were only discovered by modern science in the late 1950s.[] Psilocybin is a prodrug of psilocin (4-hydroxy-dimethyltryptamine), a serotonin receptor agonist and classic psychedelic drug whose principal psychoactive effects are mediated by serotonin 2A (5-HT2A) receptor agonism.[] Psilocybin therefore has a novel pharmacology in the context of currently available antidepressant medications, because selective serotonin-reuptake inhibitors are not direct 5-HT2A receptor agonists.

It was against this backdrop that Dr. Thompson, then Chair of the Department of Physiology at UMB, began the research that gave rise to the alleged trade secrets in issue. In 2016, after Thompson's lab conducted research on selective serotonin reuptake inhibitors ("SSRIs"), Thompson formed the hypothesis that underlies plaintiffs' claims: that psilocybin's rapid, therapeutic, antidepressant effects might be preserved, without its hallucinogenic effects, even

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[6] The Court has written several opinions summarizing the factual and procedural background of this case. *See*, *e.g.*, ECF 79; ECF 112; ECF 128; ECF 161; ECF 197. To the extent relevant, I incorporate those factual and procedural summaries here.

[7] Under Fed. R. Evid. 201, a court may take judicial notice of adjudicative facts if they are "not subject to reasonable dispute," in that, *inter alia*, they "can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned."

when 5-HT2A receptor[8] activation is blocked by a 5-HT2A antagonist such as ketanserin. ECF 321-30, Thompson Deposition, at 19–20; ECF 304-5 at 15 (same).

Beginning in October 2018, Jonathan Fischell, a graduate student in Thompson's lab, assisted Thompson with the testing and development of this idea. *See* ECF 321-31 (email from Fischell to Thompson regarding "October research elective"); ECF 321-32 (email from Fischell to Thompson regarding "Psilocybin Project"). But, in January 2019, when Thompson's lab was "unable to obtain psilocybin" during Fischell's time working there, in January 2019, the lab completed experiments on rodents using fluoxetine as a substitute for psilocybin. ECF 321-33, Fischell Research Final Report, at 2.

In February 2019, Natalie Hesselgrave, another graduate student, also began working with Thompson to conduct experiments using psilocybin on rodents. *See* ECF 321-34 (email chain between Fischell and Thompson regarding "psilocybin potentiation experiments" on rats); ECF 321-35 (email chain between Thompson and Hesselgrave regarding psilocybin experiments on mice); ECF 321-36 (email chain between Fischell and Hesselgrave regarding ketanserin dose determinations). As part of these discussions, Thompson, Fischell, Hesselgrave, and Tim Troppoli, another student in Thompson's lab, researched and discussed dosages and timing for the administration of psilocybin and ketanserin. *See* ECF 321-37 (email from Troppoli to Hesselgrave regarding ketanserin and psilocybin experiments); ECF 321-38 (email from Troppoli to Thompson regarding "Psilocybin EEG Experimental Design").

On May 2, 2019, Hesselgrave submitted a presentation abstract for the annual conference

[8] The term "5-HT2A receptor" is occasionally shortened to "5-HT2AR." *See, e.g.*, ECF 304-26, Hesselgrave Abstract, at 2; ECF 325 at 43.

of the National Society for Neuroscience ("SFN"), which was to be held in October of that year, titled "Taking the Fun Out of Psilocybin: Can Psilocybin's Rapid Antidepressant Action Be Preserved in the Absence of Hallucinations?" ECF 304-25 (receipt of submission of abstract to SFN, dated 5/2/2019); ECF 304-26 ("Abstract"). As discussed, *infra*, on October 23, 2019, Hesselgrave gave a presentation at the SFN conference based on this Abstract. *See* ECF 304-30 (email from Thompson to Troppoli and Hesselgrave regarding "SfN posters"); ECF 304-31 (poster presentation titled "Taking the fun out of psilocybin: Can psilocybin's rapid antidepressant action be preserved in the absence of hallucinations?").

In the Abstract, Hesselgrave wrote, ECF 304-26 at 2:

> Major depression is a debilitating illness and one of the leading causes of disability world-wide. First line pharmacotherapies targeting the serotonin system, such as selective serotonin reuptake inhibitors (SSRIs) like fluoxetine, are effective in ~60% of patients. Typically, patients must take SSRIs for 4-8 weeks to experience relief of depressive symptoms. More effective and faster acting medications are needed. Recently, psilocybin, a hallucinogenic plant-derived pan-serotonergic agonist, was shown to produce a rapid antidepressant response in humans with treatment resistant depression. However, the hallucinations pose a significant barrier to its widespread use. Antagonists of serotonin2A receptor (5-HT2AR), such as ketanserin, can be used to block hallucinations in humans. Can a combination of psilocybin plus ketanserin provide rapid relief of depressive symptoms without hallucinations? In rodents, chronic administration of fluoxetine reverses anhedonic deficits in reward behavior produced by chronic multimodal stress (CMS). Fluoxetine also restores the strength of temporoammonic (TA) - CA1 synapses in the hippocampus. Here, we test the hypothesis that psilocybin can exert a rapid anti-anhedonic effect in rodents subjected to CMS and ask whether this effect is independent of 5-HT2ARs. Using 10-21 days of CMS, we induced an anhedonic phenotype in rodents, as assessed by loss of sucrose preference. Sucrose preference was restored within 48 hours of a single acute dose of psilocybin (1mg/kg). Experiments with psilocybin and ketanserin are in progress. Ketanserin did not impair the ability of fluoxetine to restore sucrose preference and to strengthen TA-CA1 synapses, suggesting that psilocybin's antidepressant effect may also be independent of 5-HT2ARs. Blocking the hallucinogenic side effect of psilocybin, but not the rapid acting antidepressant effect, by co-administering psilocybin and ketanserin could provide a novel and viable approach for safe and effective rapid relief of depression.

On May 16, 2019, Dr. Carlos Zarate, of the National Institute of Mental Health, wrote an email to Dr. Malievskaia, who was then "Head of Research and Development" for Compass. ECF 321-39 at 3; *see also* ECF 67-17 at 2 (same). Zarate copied Dr. Todd Gould, a Professor of Psychiatry at UMB, on the email. *See* ECF 321-39 at 3. Zarate wrote, *id.*:

> Thanks for exploring the possibility of conducting a PK/biomarker study at NIMH. As we discussed, I believe it would be important to do preclinical mechanistic work on psilocybin. I can't think of anyone better to do this work than Todd Gould at the University of Maryland. He has done elegant work deciphering the cellular and molecular mechanisms of ketamine, hydroxynorketamine, and other putative rapid acting antidepressant agents. He is cc'd on this email. Hope you can work something out and our lab would be delighted to collaborate on this project as well. Dr. Gould's lab of course would need support to do such a project.

Malievskaia answered on the same day, thanking Zarate for the introduction to Gould, and informing Gould that Compass was in the process of "developing psilocybin for treatment-resistant depression and trying to understand molecular mechanisms of psilocybin." *Id.* at 2.

Gould responded to Malievskaia on May 22, 2019, by which time a phone call had apparently been scheduled to discuss a potential project. *Id.* In his email, Gould suggested involving Dr. Scott Thompson, stating, *id.*:

> I work closely here with Scott Thompson, who is the chair of Physiology and an electrophysiologist, on many of our rapid acting antidepressant studies e.g.: https://www.ncbi.nlm.nih.gov/pubmed/?term=gould+td+thompson
>
> In general Scott's expertise in electrophysiology complements my own expertise in neuropharmacology.
>
> I just finished a conversation with Scott, and turns out he is interested in psilocybin MOA as well, and would take different but complementary experimental approaches to my own. I think having his input on any project we undertake in would be helpful. Would it make sense from your end to include Scott on our call scheduled next week (with a NDA in place)?

Malievskaia agreed that Gould should invite Thompson to participate in the upcoming

telephone call. ECF 67-20 (email between Gould, Thompson, Malievskaia, Manon Veraart, and Jessica Rose Stuart regarding "MUTUAL NONDISCLOSURE AGREEMENT_MAY2018[1].docx"), at 2. Malievskaia also asked Stuart and Veraart, both of Compass, to provide Thompson with a nondisclosure agreement ("NDA"). *Id.*

On May 29, 2019, Stuart provided Thompson with a NDA for his signature, "ahead of the call with COMPASS Pathways." ECF 321-40 (email chain between Thompson, Malievskaia, Veraart, and Stuart regarding NDA), at 3. On the same date, Veraart followed up, writing: "Scott, could you please let us know if you have any comments on the NDA. If/when you're happy with this, could you please return a signed version ahead of the call with Katya." *Id.* at 2–3. Thompson returned a signed copy of the NDA on the same day. *Id.* at 2; *see* ECF 67-19 ("Thompson NDA"). Compass also sent a NDA to Gould. *See* ECF 67-20 (email from Veraart asking Gould to sign a NDA), at 2.[9]

The Thompson NDA is titled "Mutual Nondisclosure Agreement." ECF 67-19 at 2. It prohibits Compass from using any information disclosed by Thompson or his colleagues, other than "in connection with exploring possible business arrangements between [Compass and Thompson] and/or their Affiliates." *Id*.

As depicted in the image below (*id.* at 4), the Thompson NDA reflects that Goldsmith was to sign it on behalf of Compass. But, neither Goldsmith nor any other representative of Compass ever signed the Thompson NDA. *Id.* Nevertheless, at the depositions of Malievskaia and Goldsmith on August 13, 2025, both testified that Compass operated under the assumption that the

[9] To my knowledge, the NDA sent to Gould is substantively identical to the one sent to Thompson.

Thompson NDA was in effect. ECF 321-43, Malievskaia Deposition, at 53; ECF 321-42 Goldsmith Deposition, at 14.[10]

COMPASS Pathways Limited

By:

Name: George Goldsmith

Title: Executive Chairman, Co-Founder

Address:

120 New Cavendish Street

Office 301

London W1W 6XX, UK

Scott Thompson

By:



Name: Scott Thompson

Title: Professor and Chair

Address:

Department of Physiology

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655 W. Baltimore St.

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Gould and Thompson participated in their first telephone conference with Compass representatives on May 31, 2019. *See* ECF 321-44 (email from Hurley to Malievskaia, Hans Eriksson, Anais Soula, and Wilton regarding "Todd Gould/Scott Thompson meeting notes 31/05/19"), at 2. In particular, Malievskaia, Shaun Hurley, and James Wilton participated on behalf of Compass. *Id.* Hurley, who was employed by Compass as a research scientist, typed notes from the meeting. *Id.* They contain the following, in relevant part, *id.* at 2–3:

[10] This position appears at odds with earlier assertions made by Compass in submissions to this Court, implying that Compass was not bound by the Thompson NDA because it was unsigned by Compass. *See* ECF 24-1 at 13 n.2 (Compass's first motion to dismiss, stating: "The NDA is not signed by Compass"); *id.* at 26 ("If this case were to proceed, Compass would be forced to . . . travel to Maryland to defend itself against claims arising from an NDA it did not sign . . . ."); ECF 51-1 at 14 n.3 (Compass's second motion to dismiss, stating: "The NDA was only signed by Thompson, not by Compass"); ECF 93-1 at 23 n.7 (Compass's third motion to dismiss, stating that "the NDA was never signed").

Todd and Scott believe that 5-HT1B receptor may be critical to rapid-acting AD function

- Would mean that autoregulation/negative feedback mechanisms involved in SSRI function are irrelevant for psilocybin
- Have been using 5-HT1B antagonists in animal studies
    - Observe synaptic strengthening related to 5-HT1B function
    - Believe that reward circuits are most critical
    - Hippocampus, nucleus accumbens and prefrontal cortex
- Don't believe 5-HT2A receptors are necessary for AD effect
- Ketanserin did not block synaptic strengthening effects of fluoxetine in their model
- Need to check if ketanserin is still available on US market?

Todd/Scott have performed preliminary experiments using psilocybin

- Had difficulty obtaining substance
- Observed antidepressant effect in chronic stressed rats after 24 hours
- Would like to block AMPA receptor function
    - Would this prevent AD effect of psilocybin?
- Mainly study AMPA receptor density as measure of synaptic strength

Would non-response to ketamine predict non-response to psilocybin?

- Scott: No
- Todd: Would be patient-specific, subset of patients may respond
- Expect different mechanisms following ketamine and psilocybin treatment
    - But these would converge at some point downstream
    - Variation in point of convergence may account for patient-specific differences

What would Todd and Scott like to do first with psilocybin?

- TG: begin with dose response experiments in behavioural tests used for ketamine
    - Would allow for direct comparison
    - Should include time course of responses in these tests
- Then: dissect mechanisms involved in responses
    - Especially role of AMPA receptor
- Next: study evoked potentials in vivo
    - Focus on hippocampus, prefrontal cortex, and nucleus accumbens
    - Have fibre photometry set up to perform calcium imaging of pre- and post-synaptic responses
- Once completed, can then explore questions that have consequences for trial design
    - E.g. chronic effect of SSRIs

After the telephone conference, Malievskaia instructed Tobias Whelan, a Research and Development Intern at Compass, to "assess . . . if any of these mechanistic studies [proposed by Gould and Thompson] have been done." ECF 321-59 (email chain between Malievskaia and Whelan regarding "Fwd: Todd Gould/Scott Thompson meeting notes 31/05/19"), at 3 (alteration added). Whelan concluded: "None of the experiments have been done before exactly as they are proposed." *Id.* at 2. Further, he opined, *id.*: "Taken together, this is noteworthy for both IP and scientific reasons . . . ."

Malievskaia wrote to Gould and Thompson on June 12, 2019, stating: "I am following up on our earlier conversation to see if you could send us a very short version for the proposed studies and rough budget." ECF 321-51 (email chain between Gould, Thompson and Compass employees, including Malievskaia, Nathan Poulsen, Lars Wilde, and Veraart regarding "Your proposal"), at 2. Gould responded on June 13, 2019, on behalf of himself and Thompson, and provided a "scientific proposal, and a proposed budget to study the administration of psilocybin in the presence of ketanserin . . . ." *Id.*; *see* ECF 321-52 (Gould and Thompson proposal, titled "Mechanisms underlying the antidepressant actions of psilocybin"). Gould added: "Scott and I share your enthusiasm regarding the antidepressant potential of psilocybin, and in determining the molecule's relevant mechanism of action." ECF 321-51 at 2.

The proposal reflected a total budget of $450,000 and identified two projects, with an "[e]xpected start date" of "August 1, 2019" and an "[e]xpected completion date" of July 31, 2021. ECF 321-52 at 3. "Project 1," which was to be directed by Gould, was titled "Pharmacological effects compared to ketamine," and included eight experiments. *Id.* at 2. "Project 2," which was to be led by Thompson, was titled "Psilocybin synaptic mechanism of action," and proposed three

experiments. *Id.* at 3. With respect to Project 2, the proposal said, *id.*: [redacted]

In particular, Thompson proposed three experiments for Project 2: [redacted]

Id. The third experiment proposed to repeat the first two experiments [redacted] *Id.* The proposal hypothesized: [redacted] *Id.*

Hurley responded to the proposal by email on June 18, 2019. ECF 321-107 (email chain between Gould, Thompson, and Compass employees, including Malievskaia, Poulsen, Eriksson, and Wilde, regarding "Your proposal"). Hurley attached a document to the email, ECF 321-58 (Compass responses to proposal of Gould and Thompson). It said, in part, *id.* at 2: "Overall, we believe that your proposal focuses on some very interesting and important questions. To our knowledge, these studies would provide the first direct evidence for the requirements (or not) of AMPAR and/or 5-HT2R function in the antidepressant actions of psilocybin." The attachment also included substantive, numbered questions for Thompson and Gould. Question 8 stated, *id.*: "We are especially excited by the potential to evaluate the efficacy of psilocybin in the presence of ketanserin, as clearly this information also has considerable clinical value. Could this study be prioritised and, if so, which prior steps would be necessary before undertaking those experiments?"

Gould and Thompson answered on June 21, 2019. ECF 321-107 at 1; *see* ECF 321-53 (answers from Gould and Thompson to Compass's questions). As to Question 8, they said, ECF 321-53 at 3: "Yes, this could be prioritized. We would have to first show that psilocybin works in our models and with our behavioural endpoints but, if so, then these experiments can be done immediately thereafter."

Thereafter, on July 1, 2019, the parties had a "follow-up call" to discuss the proposal. ECF 321-45 (email chain between Hurley, Malievskaia, Poulsen, and other Compass employees regarding call with Gould and Thompson as to the proposal), at 5; *see* ECF 321-46 (email providing Zoom meeting invitation from Malievskaia for call with Thompson, Gould, Hurley, Poulsen and other Compass employees); ECF 321-47 (Zoom meeting invitation from Malievskaia to Gould, Thompson, Hurley, Poulsen, and other Compass employees). Hurley provided the Compass team with notes from the meeting. ECF 321-49 (email from Hurley to Malievskaia, Poulsen, and other Compass employees regarding "Todd Gould and Scott Thompson call notes 01/07/19"). The notes indicate that the attendees at the meeting were "Todd, Scott, Nate, Lars, Katya, Hans, Manon, Anais, Aslihan, Drummond, Shaun." *Id.* at 2.

Anais Soula, a researcher at Compass, sent an email to other Compass employees on July 22, 2019, with the subject line "Todd Gould and Scott Thompson." ECF 321-60 at 2. Soula stated, in part: "Use results before everything is available (publish and IP)." *Id.*

Thompson, Malievskaia, and others participated in a telephone call on August 1, 2019. ECF 321-50 (email chain between Hurley, Malievskaia, Poulsen, Aslihan Selimbeyoglu, Wilde, Soula, Eriksson, and Veraart regarding "Update on Todd Gould/Scott Thompson Collaboration"). Hurley's notes from that call reflect that Thompson and Gould agreed to an initial "1 year

collaboration, with the possibility of funding the second year of experiments depending upon the first year's success." *Id.* at 2.

On August 13, 2019, UMB filed a provisional patent application with the U.S. Patent and Trademark Office ("PTO") for the '090 patent, titled "Methods of Treating Psychological and Brain Disorders." *See* ECF 304-39 ("'090 Application"). And, in September 2022, the University filed an application for the '950 patent, in which "it claim[ed] the benefit of priority" of the '090 Application. ECF 304-44 at 21 ("'950 Application"). As discussed, *infra*, defendants argue that these applications disclosed plaintiffs' alleged trade secrets.

Soon after, on August 28, 2019, Nathan Poulsen, General Counsel for Compass and the company's Head of Legal, Intellectual Property, and Licensing, sent an email to Sandhya Deo, J.D., Ph.D., one of Compass's outside lawyers at Cooley LLP, with the subject line "new RUSH provisional patent filing for compass [sic]." ECF 321-95 (email chain between Poulsen, Deo, and other Cooley attorneys regarding provisional patent filing), at 3. Poulsen explained to Deo that Drummond McCulloch, one of Compass's interns, would be presenting the proposal the following day,[11] which related to his desire to find a lab for graduate school, and, "[a]s such, [Compass] would like to build on one of the previously filed provisional applications (which included the use of a benzo as rescue medication in the protocol) and get a quick provisional (based on the attached) on file tomorrow." *Id.*

Poulsen attached to his email the "Drummond McCulloch PhD Proposal 2019." *See* ECF 321-93 ("McCulloch Proposal"); *see also* ECF 304-59 (same). The McCulloch Proposal is titled

[11] The presentation was made to the Neurobiology Research Unit at Copenhagen University Hospital.

"Drummond McCulloch PhD Proposal 2019[:] Investigating the efficacy of a benzodiazepine or 5HT2A antagonist in reducing anxiety associated with psilocybin administration and associated neurological changes." *Id.* (alteration added). The McCulloch Proposal contains a section titled "2A Antagonist Bonus Project." *Id.* at 6. In full, it states, *id.*:

2A Antagonist Bonus Project

Better understand the role of the non-2A receptors in the subjective effects of psychedelics

Develop understanding of the molecular interaction between psychedelics and the 2A receptor

- Historically typical antipsychotics were used to cut trips if they were deemed unsafe, yet these came with a host of side effects that made this an unfavourable choice and these were phased out (Doblin, 1991)
- However, modern specific 2A antagonists such as ketanserin and the inverse agonist pimavanserin may present a superior model for removing patients undergoing traumatic psychedelic experiences, although ketanserin has been shown to fully attenuate trips when given before psychedelics, no trials so far have given ketanserin during the trip (Preller et al., 2018)
- X-Ray crystallography data of LSD binding to the 2B receptor showed that psychedelic effects were correlated with a specific, tight binding to the receptor and characteristic slow off kinetics (Wacker et al., 2017). This may suggest that a 2A antagonist will be unable to remove the psychedelic compound from the receptor once it is bound

Repeat experiments using either ketanserin (Broadly selective 2A antagonist) or pimavanserin (2A inverse agonist). Could use 3H-Ketanserin to measure binding in PET.

Potential outcomes:

Selective 2A antagonism only reduces certain aspects of the psychedelic experience (in line with Preller lab, Zurich)
There may be a difference in the ability of 2A antagonists to knock PSI from the 2A receptor post-hoc due to the "lid" binding kinetics

Purists don't like the idea:

Poulsen also attached several other documents to his email. The attachments included a Powerpoint presentation titled [redacted] ECF 304-61.

Deo responded to Poulsen's email on the same date, August 28, 2019. ECF 321-96 (email

chain between Poulsen, Deo, and Cooley attorneys regarding provisional patent filings). She said, in part, *id.* at 2:

> I took a look through the Powerpoint as well as the word docs – is he presenting anything that is in the word docs that's not in the Powerpoint? [redacted] We could always put that in a second rush provisional that we file tomorrow, as we may want to keep it separate from the benzo case.

Poulsen answered that he would like to "keep it separate." *Id.* Deo then wrote: "Sure – we likely won't be able to file the 5A antagonist one today, but we'll do so tomorrow. We'll add the Powerpoint as an Appendix." *Id.*

Deo explains in her Declaration (ECF 321-104) that she and her team "prepared a provisional patent application . . . which became the '110 Application [] on August 28, 2019." *Id.* ¶ 9. Deo avers that the '110 Application is based on the McCulloch Proposal. *Id.* ¶¶ 4–9.

Of import, Deo avers: "Additionally on August 28, 2019, while reviewing the [McCulloch] Proposal for purposes of drafting the '110 Application, my team and I noticed that, in addition to the Proposal's focus [redacted]

Pursuant to the instructions of Poulsen, discussed above, Deo prepared "a second rush provisional patent application related to the [McCulloch] Proposal 'bonus project,'" *i.e.*, the '611

Application. ECF 321-104, ¶ 16 (alteration added). In other words, both the '110 Application and '611 Application were based on the McCulloch Proposal. *See id.* ¶¶ 13-17.

With respect to the drafting of the '611 Application, Deo avers, *id.* ¶ 18:

> To draft the '611 Application, my team and I used the '110 Application as a starting point because the '110 Application was generally directed to [redacted] These replacements were done in 'track changes' in order to create a redline against the '110 Application.

The '611 Application was filed on August 29, 2019, titled "Methods of Co-Administering 5-HT2A Antagonists/Inverse Agonists and Psilocybin." ECF 304-84. The '611 Application was signed by Goldsmith, in his capacity as "Co-Founder" and "Chairman" of Compass. ECF 304-83 at 3; ECF 321-63 at 6 (same). Defendants claim that the '110 Application was the source of certain information in the '611 Application. ECF 304 at 35. Plaintiffs contend that Compass's '611 Application "disclos[es] and claim[s] Dr. Thompson's discoveries." ECF 325 at 21.

The '611 Application was made publicly available on October 22, 2020, when it was incorporated into several other patents that were published under the Patent Cooperation Treaty. *See* ECF 304-96, Macartney Deposition, at 543; ECF 321-71 (Compass International Patent Application titled "Methods for Treating Anxiety Disorders, Headache Disorders, and Eating Disorders with Psilocybin"); ECF 321-72 (Compass International Patent Application titled "Methods of Treating Neurocognitive Disorders, Chronic Pain and Reducing Inflammation"); ECF 321-73 (Compass International Patent Application titled "Treatment of Depression and Other Various Disorders with Psilocybin"). According to plaintiffs, "Terran discovered those

applications in the spring of 2022." ECF 325 at 21 (citations omitted).

Also on August 29, 2019, the date of filing of the '611 Application, Hurley sent an email to Malievskaia, Poulsen, Wilde, and other Compass employees regarding "Scott Thompson Psilocybin Poster Abstract." ECF 321-64 at 6–7. He wrote, *id.* (emphasis in original):

> I just wanted to draw your attention to a psilocybin-related poster abstract from Scott Thompson's group, which was released yesterday ahead of the Society for Neuroscience annual meeting in October (which I plan to attend).
>
> Scott and Todd had mentioned that some of their preliminary experiments suggested that psilocybin demonstrates an effect in their chronic mild stress (CMS) model. In this abstract they indeed reported:
>
> *"Using 10-21 days of CMS, we induced an anhedonic phenotype in rodents, as assessed by loss of sucrose preference. Sucrose preference was restored within 48 hours of a single acute dose of psilocybin (1mg/kg). Experiments with psilocybin and ketanserin are in progress."*
>
> As they would have submitted this abstract around late April, it seems that their psilocybin programme is likely to be well under way - **should we be concerned about our collaboration with them, given that they proposed to perform the same experiments for our project?**
>
> On a separate note - though effective doses may vary between models, this does provide additional evidence that our pilot doses of 1,3 and 10mg/kg are on the right track.

Malievskaia responded: "It might also raise some IP issues." *Id.* at 6. Lars Wilde, a co-founder of Compass (ECF 321-23, Wilde Deposition, at 10) and, at the time, President of Compass (*id.* at 11), replied: "I think we should kindly ask them to tell us what experiments they are already running and whether they are working with someone else but us." ECF 321-64 at 4.

The email chain indicates that the Compass team scheduled an internal conference call on September 3, 2019, to discuss the project. *Id.* at 2. In the email, Hurley wrote, *id.*: "I have a suggestion - shall we use our meeting scheduled for 10:30am next Tuesday (originally on the SRA

for Todd/Scott's project) to instead discuss our wider thoughts on this project given these developments (including IP implications) and how to approach our call with Todd and Scott?"

Two days later, on September 5, 2019, several Compass employees held a conference call with Thompson and Gould. ECF 321-57 (email chain between Thompson, Gould, and Compass employees, including Malievskaia, Goldsmith, Wilde, Eriksson, Poulsen, Veraart, and Soula, regarding "Questions Following our Call"), at 5. The next day, Hurley wrote to Thompson: "Scott, I just wanted to follow-up with a couple of quick questions to further help us understand your progress with psilocybin." *Id.* In particular, Hurley stated, *id.*:

- You mentioned that you had success with psilocybin in rats, but that it did not work in your first mouse cohort
    - Why do you think that psilocybin did not work in your mouse cohort and what do you plan to change in the next cohort?
- You were optimistic that some more experiments might have been started during your holiday
    - Do you have any more updates on your group's progress with psilocybin from recent weeks?
    - And based on your group's current progress, what other psilocin/psilocybin experiments do you expect to have started/completed prior to receiving psilocybin from COMPASS?
- Would you be willing to share with us the initial data that you have and what you plan to present at SFN?

Thompson responded, *id.* at 4 (emphasis in original):

> *You mentioned that you had success with psilocybin in rats, but that it did not work in your first mouse cohort*
>
> What I intended to say is that there were problems with the baseline behaviors of the initial mouse cohort, not that there were problems with the responses to psilocybin.
>
> *Do you have any more updates on your group's progress with psilocybin from recent weeks? Would you be willing to share with us the initial data that you have and what you plan to present at SFN?*
>
> Preliminary data is just that — preliminary. I have learned over the years that it is not worthwhile to put stock in such data until the experiments are sufficiently powered.

> *And based on your group's current progress, what other psilocin/psilocybin experiments do you expect to have started/completed prior to receiving psilocybin from COMPASS?*
>
> This question is difficult to answer without knowing when our agreement is starting. As I told you at the time of our initial calls, this project was a major thrust of my laboratory before we spoke and it seems like the scientific and non scientific world is getting excited about psilocybin's potential. We don't want to be left behind so we will continue to move forward as fast as we can.

Hurley replied, in part, *id.* at 3:

> Following our previous call and your responses to our email, we have come to the understanding that:
>
> - You have used psilocybin only in chronically-stressed rats (n=4)
> - Your proposed psilocybin experiments for the COMPASS project (with mice) have not been started
> - Specifically, you have not yet started the ketanserin experiments (although the provisional patent application has been filed in August)
>
> Can you please confirm that our understanding on these matters is correct? For the reasons outlined above, we are sure you appreciate why this is an important step in advancing our collaboration.
>
> I would like to re-emphasise that we are excited about the opportunity to work with you and, given that we may wish to test new compounds in the future, we hope that this can be the start of an open and productive collaboration.

Thompson answered, *id.* at 2: "I can unequivocally confirm the three statements you made. The only caveat is in regard to the final statement. We did test ketanserin on fluoxetine's actions on behavior and synaptic transmission in rats, but we have not tested it against psilocybin or psilocin or in mice."

Hesselgrave presented her poster at the SFN conference on October 23, 2019. *See* ECF 304-30; ECF 304-31. The poster stated, in part: "Activation of the 5-HT 2A receptor underlies the hallucinogenic effects of psilocybin, ***but is 5-HT 2 activation necessary for the AD effects of psilocybin?***" ECF 304-31 at 2 (emphasis in original). Further, in the section titled "Conclusions,"

the poster stated, *id.*: "Psilocybin is a hallucinogen, classified as a schedule 1 drug. It is known to be relatively safe, having a high LD50, and not likely addictive. However, like other hallucinogens, psilocybin activates the 5-HT2A receptor causing hallucinatory, spiritual or mystical experiences that may be disturbing. By co-administering Psilocybin+Ketanserin, we hope to harness the antidepressant effects of a naturally occurring pan-serotonergic agonist while mitigating the negative side effects."

Hurley attended the SFN conference. ECF 321-113 at 2 (email dated October 25, 2019, from Hurley to Malievskaia, Eriksson, Poulsen, Selimbeyoglu, and Soula regarding "Updates from SfN"). On October 25, 2019, Hurley wrote to Malievskaia, Poulsen, Eriksson, Selimbeyoglu, and Soula at Compass, stating: "Earlier in the week I met with Scott Thompson and yesterday I visited the poster from his PhD student on Psilocybin." *Id*.

In that email, Hurley provided the Compass team with a summary of his meeting and observations from the SFN conference. *Id*. He wrote, *id.* at 2:

> When I met Scott he did reveal that they had had some positive results with Psilocybin in mice, but that the number were still small (~5 per group). At the poster I found the following data:
>
> - 1mg/kg Psilocybin significantly reversed loss of sucrose preference (an anti-anhedonia phenotype) in chronically stressed BL6129F1 mice (n=10 mice per group)
> - 1mg/kg Psilocybin significantly reversed loss of sucrose preference in chronically stressed C57/BL6 mice (n=~5-6 mice per group)
>   - This effect was only seen in a "susceptible" group of C57/BL6 mice - they also discovered "resilient" group that did not demonstrate the anhedonia phenotype after chronic stress, meaning that Psilocybin could not rescue the stress effect
>   - They also found that Psilocybin potentiated AMPA:NMDA receptor ratios in the same mice - this was shown in the hippocampal synapse they plan to study in our project
> - They had also taken brain slices from two C57/BL6 mice and

studied electrophysiological changes
- Psilocin partially and temporarily potentiated the signal at the hippocampal synapse of interest
- However, they suspect the weak and transient nature of the signal was due to degradation of psilocin

Whilst these results are encouraging, they do contradict Scott's previous reassurance to us on 24/09/19 that they were not undertaking experiments in mice. As a reminder, Scott "unequivocally confirmed" the following statements that we sent to him:

- You have used psilocybin only in chronically-stressed rats (n=4)
- Your proposed psilocybin experiments for the COMPASS project (with mice) have not been started
- Specifically, you have not yet started the ketanserin experiments (although the provisional patent application has been filed in August)

As all of their electrophysiological work in the past has been in C57/BL6 mice, they do need to properly show the behavioural effect in more of these mice to complete their story and, hence, Scott may have been referring to these when he personally told me that the [sic] had only used ~'5 per group.

I will share with you my other notes and insights from the conference upon my return to London, but for now I thought it was important to inform you of these developments.

Hurley contacted Malievskaia, Poulsen, Eriksson, Veraart, Wilde, and Stephen Wright at Compass on November 12, 2019, to discuss how to "proceed regarding [their] potential collaboration" with Thompson. ECF 321-89 (email chain regarding "Todd Gould and Scott Thompson"), at 4. Hurley wrote, *id.* at 4–5 (emphases in original):

Background:
- Todd Gould recently decided to withdraw from the collaboration
  - He received a number of grants and wanted to focus instead on those projects
- Despite receiving assurances from Scott Thompson that his group is not running our planned Psilocybin experiments, it became clear at SFN (from speaking to him and from seeing his PhD student's poster) that they have started to run these experiments and are continuing to do so

> Key takeaways from today's discussion:
> - Understanding the importance of the 2A receptor to the therapeutic effects of Psilocybin remains very valuable for the company
>
> - It's good to own the data that explains our compound's mechanism of action
> - This remains the case even if the benefits and applications of Psilocybin+ketanserin combination therapy are unclear
> - We agreed that Scott has lost our trust and it is unlikely that this could be recovered by proceeding with the collaboration
> - To attempt to do so is a considerable risk for the company, especially as we cannot predict what else may come next
>
> Based on the above, **I would like to recommend that we withdraw from the proposed collaboration.** I propose that I should contact Scott to explain that as the experiments for this collaboration are ongoing, we do not believe that our support is necessary and are not comfortable with supplying the Psilocybin to him. **@Ekaterina @Lars,** are you happy to support this approach? If so, I will reach out to you with a draft of the email that I can send to Scott.
>
> Interestingly, in my meeting with Scott in Chicago he also wanted to know if we would be interested to develop a new compound that he has been testing pre-clinically. It's a GABA negative allosteric modulator. **@Manon @Lars would this still be of interest to us?**
>
> My assumption is that since trust was a key issue for us in this Psilocybin collaboration that it may also influence our decision in this new venture. However, I wanted to leave open the opportunity to explore this if you think it would be worthwhile - please let me know.
>
> Thank you all for your time and support in deciding how best to respond to this difficult situation.

Malievskaia, Veraart, and Wilde responded to Hurley's email, expressing agreement with his plan of action. *Id.* at 2–4. In particular, Malievskaia wrote: "I agree with the withdrawing form [sic] collaboration completely and not to consider other options with him." *Id.* at 3.

Hurley wrote to Thompson on November 20, 2019, "following [their] meeting at SFN last month." ECF 321-66 (email from Hurley to Thompson regarding "Update from COMPASS"), at 2 (alteration added). Malievskaia, Wilde, Eriksson, and Poulsen were copied on the email. *Id.*

Hurley said, *id.*:

> The results that your group presented sound promising, but we understand from your presentation at SFN that the experiments outlined in your proposal to us are already in progress. As discussed previously, we are not comfortable with supplying our product, a scheduled substance, for studies that are in-progress/completed. Given the above, it appears that our support is not appropriate at this stage. Therefore, we are unable to proceed with the collaboration. It was not an easy decision for us and we regret any inconvenience it might have caused.
>
> I also wanted to let you know that I approached our Business Development team with regards to your new compound. Unfortunately, we are unable to help you with this as currently COMPASS remains fully focused on Psilocybin.
>
> The pre-clinical research into Psilocybin and similar substances is only now starting to emerge in force and we are excited to see your work as an important element of this new effort to understand these substances. We wish you the very best with your research in this area.[12]

In December 2020, UMB and Terran entered into an option agreement, through which UMB granted Terran "an exclusive option to negotiate and obtain an exclusive, royalty-bearing, worldwide, license in all fields to the Invention." *See* ECF 321-67 ("Option Agreement"), ¶ 3.1.1. The Option Agreement states, in part: "A valuable invention generally known as '*Methods of Treating Psychological and Brain Disorders*' (the '**Invention**'), has been made by Scott Thompson of University." *Id.* ¶ 1.1 (emphasis in original).

Then, in May 2021, UMB and Terran entered into a Master License Agreement. ECF 321-68 ("MLA"). In the MLA, the University granted Terran an exclusive license "to make, have made, use, sell, offer to sell, and import the Licensed Products." *Id.*, ¶ 3.1.1. "Licensed Products" is defined, in relevant part, as: "Any product, service, or process, the development, making, use,

[12] To my knowledge, the parties have not submitted a response from Thompson to Hurley's email.

offer for sale, sale, importation, or providing of which: . . . contains, comprises, utilizes, incorporates, or is derived from the Inventions . . . ." *Id.* ¶ 2.30. Like the Option Agreement, the MLA provides, *id.* ¶ 1.1 (emphases in original): "A valuable invention known as '*Methods of Treating Psychological and Brain Disorders*' (**'Invention #1**'), has been made by Scott M. Thompson, Ph.D. ('**University Inventor**')." Upon execution of these agreements, Terran began to plan the deployment of Thompson's research in its own pharmaceutical offerings. *See* ECF 321-69 (Terran Introduction Presentation, dated January 2021); ECF 321-70 (Terran Introduction Presentation, dated March 2022).

On September 8, 2022, UMB submitted the '950 Application to the PTO, titled "Methods of Treating Psychological and Brain Disorders, naming Thompson as the inventor. ECF 304-44 at 2, 4. As indicated, the '950 Application "claim[ed] the benefit of priority under 35 U.S.C. § 119(e) of provisional application U.S. Serial No. 62/886,090, filed August 13, 2019, hereby incorporated in its entirety." *Id.* at 21 (alteration added).

The PTO examiner rejected several claims of the '950 Application under 35 U.S.C. § 102 as obvious due to a patent held by "Perez et al." *Id.* at 74; *see* ECF 304-43 ("Perez Patent" or "Perez"). The Perez Patent application, WO 2019/081764A1, was filed by a Spanish laboratory on October 26, 2018, and was published on May 2, 2019. ECF 304-43 at 3. The Perez abstract provides, *id.*:

> The present application provides a combination product for the treatment and/or prevention of psychiatric and/or neurological disorders. The combination product comprises (i) a compound which promotes neurogenesis and has hallucinogenic and/or psychedelic side effects. and (ii) a 5-HT2A receptor antagonist which alleviates and/or removes the hallucinogenic and/or psychedelic side effects caused by the first compound.

As justification for the rejection of several claims of the '950 Application, the PTO

explained that "Perez et al. teach a pharmaceutical combination of a compound of formula I and a 5-HT2A receptor antagonist . . . for the use in the treatment of depression," that a "preferred compound of formula I is psilocybin," and a "preferred 5-HT2A receptor antagonist is ketanserin," and that "[t]he compound of formula I and 5-HT2A receptor antagonist can be administered together or separately." ECF 304-44 at 74. Further, the PTO examiner determined that several claims were also "rejected under 35 U.S.C. 103(a) as being obvious over Perez et al." *Id.* at 75. In particular, the PTO wrote, *id.* at 76:

> Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed invention was made . . . by administering the pharmaceutical combination of the compound of formula I (psilocybin) and the 5-HT2A receptor antagonist (ketanserin), as taught by Perez.

Counsel for the University requested reconsideration of the PTO's decision and amended a claim to recite "a method of treating depression with ketanserin and psilocybin, wherein 'the psilocybin is administered 60 minutes after the administration of the ketanserin,'" and directed to specified forms of depression. *Id.* at 80. UMB's counsel argued: "Such features are not taught in Perez et al., thereby rendering the rejection under 35 U.S.C. 102(a) moot." *Id.*

In an "Office Action" mailed September 28, 2023, the PTO examiner again rejected the claims of the '950 Application. *Id.* at 83–88. The examiner acknowledged that "Perez et al. fail to specifically teach the claimed depression types and psilocybin being administered 60 minutes after ketanserin." *Id.* at 86. Nevertheless, the PTO concluded that "it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed invention was made, to have administered psilocybin about 60 minutes after administering ketanserin in the method of treating major depression, psychotic depression, or postpartum depression." *Id*.

Prior to the filing of the instant lawsuit, Terran purchased Perez "from Blumentech and

several Spanish universities." ECF 304-49; *see* ECF 304 at 31 n.13. According to a document produced by plaintiffs, depicted in the screenshot below, Perez "[c]overs pharmaceutical composition of psychedelics, [redacted] ECF 304-49 (alteration added). The document provides, *id.* (highlighting added by defendants):

Patent	Important Content
11723894.pdf	Granted US patent. Acquired from Blumentech and several Spanish universities. [redacted]
WO2021030571A1.pdf	[redacted]
WO2022212854.pdf	This is the joint Terra -UMB patent, containing the results of our data analysis crossover study in humans.
[redacted]	

As indicated, Compass submitted the '110 Application and the '611 Application in August 2019. *See* ECF 321-104, ¶¶ 9, 28; *see also* ECF 321-71; ECF 321-73. And, as mentioned, plaintiffs contend that these patent applications "disclos[e] and claim[] Dr. Thompson's discoveries" (ECF 325 at 21) and were published and therefore made publicly available on October 22, 2020. *See* ECF 321-71; ECF 321-72; ECF 321-73. But, according to Terran, it was not until the spring of 2022 that Terran discovered that Compass had submitted these patent applications and that they had been made public. ECF 325 at 21. The lawsuit followed on August 5, 2022. *See* ECF 1.

Additional facts are included in the Discussion.

II. Legal Principles

A. Standard of Review

Under Fed. R. Civ. P. 56(a), summary judgment is appropriate only "if the movant shows

that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." *See Celotex Corp. v. Catrett*, 477 U.S. 317, 322–24 (1986); *see also Dieng v. Orkin, LLC*, 185 F.4th 107, 114 (4th Cir. 2026); *Crosby v. Colleton Cnty. Sheriff's Off.*, 184 F.4th 383, 389 (4th Cir. 2026); *Lee v. W. Virginia Univ. Med. Corp.*, 181 F.4th 424, 433 (4th Cir. 2026); *Deque Sys., Inc. v. Browserstack, Inc.,* 177 F.4th 585, 598 (4th Cir. 2026); *Cybernet, LLC v. David*, 954 F.3d 162, 168 (4th Cir. 2020); *Variety Stores, Inc. v. Wal-Mart Stores, Inc.*, 888 F.3d 651, 659 (4th Cir. 2018); *Iraq Middle Mkt. Dev. Found. v. Harmoosh*, 848 F.3d 235, 238 (4th Cir. 2017). To avoid summary judgment, the nonmoving party must demonstrate that there is a genuine dispute of material fact. *Ricci v. DeStefano*, 557 U.S. 557, 585–86 (2009); *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 585–86 (1986); *Gordon v. CIGNA Corp.*, 890 F.3d 463, 470 (4th Cir. 2018).

The Supreme Court has clarified that not every factual dispute will defeat a summary judgment motion. "By its very terms, this standard provides that the mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no *genuine* issue of *material* fact." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–48 (1986) (emphasis in original); *see McPherson v. Patton*, 176 F.4th 779, 786 (4th Cir. 2026); *Flynn v. Kone Inc.,* BAH-25-1529, 2026 WL 1707560, at *5 (D. Md. June 12, 2026). A fact is "material" if it "might affect the outcome of the suit under the governing law." *Anderson*, 477 U.S. at 248.

There is a genuine dispute as to material fact "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Id.*; *see Dieng*, 185 F.4th at 114; *CTB, Inc. v. Hog Slat, Inc.*, 954 F.3d 647, 658 (4th Cir. 2020); *Variety Stores, Inc.*, 888 F.3d at 659; *Sharif v.*

United Airlines, Inc., 841 F.3d 199, 204 (4th Cir. 2016); *Libertarian Party of Va. v. Judd*, 718 F.3d 308, 313 (4th Cir. 2013). On the other hand, summary judgment is appropriate if the evidence "is so one-sided that one party must prevail as a matter of law." *Anderson*, 477 U.S. at 252; *see McAirlaids, Inc. v. Kimberly-Clark Corp.*, 756 F.3d 307, 310 (4th Cir. 2014). But, "the mere existence of a scintilla of evidence in support of the [movant's] position will be insufficient; there must be evidence on which the jury could reasonably find for the [movant]." *Anderson*, 477 U.S. at 252 (alterations added).

Pursuant to Fed. R. Civ. P. 56(c)(1), where the moving party bears the burden of proof on the issue at trial, he must support his factual assertions by "citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations . . . , admissions, interrogatory answers, or other materials . . . ." But, where the nonmovant bears the burden of proof at trial, the moving party may show that it is entitled to summary judgment by citing to evidence in the record, or "by 'showing'—that is, pointing out to the district court—that there is an absence of evidence to support the nonmoving party's case." *Celotex Corp.*, 477 U.S. at 325; *see also* Fed. R. Civ. P. 56(c)(1)(B).

"A party opposing a properly supported motion for summary judgment 'may not rest upon the mere allegations or denials of [its] pleadings,' but rather must 'set forth specific facts showing that there is a genuine issue for trial.'" *Bouchat v. Balt. Ravens Football Club, Inc.*, 346 F.3d 514, 522 (4th Cir. 2003) (quoting former Fed. R. Civ. P. 56(e)), *cert. denied*, 541 U.S. 1042 (2004); *see Celotex Corp.*, 477 U.S. at 322–24. In other words, the nonmovant "must rely on more than conclusory allegations, mere speculation, the building of one inference upon another, or the mere existence of a scintilla of evidence." *Humphreys & Partners Architects, L.P. v. Lessard Design,*

Inc., 790 F.3d 532, 540 (4th Cir. 2015) (internal quotation marks omitted). Rather, "there must be evidence on which the jury could reasonably find for the nonmovant." *Thompson v. Virginia*, 878 F.3d 89, 97 (4th Cir. 2017) (alteration and internal quotation marks omitted). And "to avoid summary judgment, the non-moving party's evidence must be of sufficient quantity and quality as to establish a *genuine* issue of material fact for trial." *Local Union 7107 v. Clinchfield Coal Co.*, 124 F.3d 639, 640 (4th Cir. 1997) (emphasis in original).

The court must view all of the facts, including reasonable inferences to be drawn from them, in the light most favorable to the nonmoving party. *Ricci*, 557 U.S. at 586; *Matsushita Elec. Indus. Co.*, 475 U.S. at 587; *accord Lee,* 181 F.4th at 433; *Knibbs v. Momphard*, 30 F.4th 200, 206 (4th Cir. 2022); *Walker v. Donahoe*, 3 F.4th 676, 682 (4th Cir. 2021); *Hannah P. v. Coats*, 916 F.3d 327, 336 (4th Cir. 2019); *Variety Stores*, 888 F.3d at 659; *Gordon*, 890 F.3d at 470; *Lee v. Town of Seaboard*, 863 F.3d 323, 327 (4th Cir. 2017). "When opposing parties tell two different stories, one of which is blatantly contradicted by the record, so that no reasonable jury could believe it, a court should not adopt that version of the facts for purposes of ruling on a motion for summary judgment." *Scott v. Harris*, 550 U.S. 372, 380 (2007).

The district court's "function" is not "to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for trial." *Anderson*, 477 U.S. at 249; *accord Guessous v. Fairview Prop. Invs., LLC*, 828 F.3d 208, 216 (4th Cir. 2016). In considering a summary judgment motion, the court may not make credibility determinations. *Brown v. Lott*, 2022 WL 2093849, at *1 (4th Cir. June 10, 2022) (per curiam); *Knibbs*, 30 F.4th at 207, 213; *Betton v. Belue*, 942 F.3d 184, 190 (4th Cir. 2019); *Wilson v. Prince George's Cty., Md.*, 893 F.3d 213, 218–19 (4th Cir. 2018); *Jacobs v. N.C. Admin. Office of the Courts*, 780 F.3d 562, 569 (4th

Cir. 2015); *In re French*, 499 F.3d 345, 352 (4th Cir. 2007); *Flynn*, 2026 WL 1707560, at *5. Therefore, in the face of conflicting evidence, such as competing affidavits, summary judgment is not appropriate, because it is the function of the factfinder to resolve factual disputes, including matters of witness credibility. *See Black & Decker Corp. v. United States*, 436 F.3d 431, 442 (4th Cir. 2006); *Dennis v. Columbia Colleton Med. Ctr., Inc.*, 290 F.3d 639, 644–45 (4th Cir. 2002).

"Courts in the Fourth Circuit may not consider inadmissible evidence on a motion for summary judgment." *Giles v. Nat'l R.R. Passenger Corp.*, 59 F.4th 696, 704 (4th Cir. 2023) (citing *Md. Highways Contractors Ass'n, Inc. v. Maryland*, 933 F.2d 1246, 1251 (4th Cir. 1991)). Therefore, to the extent that evidence amounts to inadmissible hearsay, it "cannot create a factual dispute." *Stanton v. Elliott*, 25 F.4th 227, 237 n.7 (4th Cir. 2022) (citing *Md. Highways Contractors Ass'n*, 933 F.2d at 1251); *see Graves v. Lioi*, 930 F.3d 307, 326 n.15 (4th Cir. 2019) (observing that "hearsay, like other evidence inadmissible at trial, is ordinarily an inadequate basis for summary judgment") (citation and internal quotation marks omitted).

Notably, "a party's 'self-serving opinion . . . cannot, absent objective corroboration, defeat summary judgment.'" *CTB*, 954 F.3d at 658–59 (quoting *Williams v. Giant Food Inc.*, 370 F.3d 423, 433 (4th Cir. 2004)). But, if testimony of a nonmovant is based on personal knowledge or firsthand experience, it can be evidence of disputed material facts, even if it is uncorroborated and self-serving. *Lovett v. Cracker Barrel Old Country Store, Inc.*, 700 F. App'x 209, 212 (4th Cir. 2017). Indeed, "'a great deal of perfectly admissible testimony fits'" the "'description'" of "'self-serving.'" *Cowgill v. First Data Techs., Inc.*, 41 F.4th 370, 383 n.8 (4th Cir. 2022) (quoting *United States v. Skelena*, 692 F.3d 725, 733 (7th Cir. 2012)). On the other hand, "[u]nsupported speculation is not sufficient to defeat a summary judgment motion." *Felty v. Graves-Humphreys*

Co., 818 F.2d 1126, 1128 (4th Cir. 1987); *see also Reddy v. Buttar*, 38 F.4th 393, 403–04 (4th Cir. 2022); *CTB*, 954 F.3d at 659; *Harris v. Home Sales Co.*, 499 F. App'x 285, 294 (4th Cir. 2012).

B. Trade Secrets

Pursuant to 18 U.S.C. § 1836(b)(1), "[a]n owner of a trade secret that is misappropriated may bring a civil action under this subsection if the trade secret is related to a product or service used in, or intended for use in, interstate or foreign commerce." *See dmarcian, Inc. v. DMARC Advisor BV*, 182 F.4th 289, 303 (4th Cir. 2026). Under the DTSA, a trade secret includes "all forms and types of financial, business, scientific, technical, economic, or engineering information," if (1) the owner took "reasonable measures to keep such information secret," and (2) "the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, another person who can obtain economic value from the disclosure or use the information." 18 U.S.C. § 1839(3); *see Synopsys, Inc. v. Risk Based Security, Inc.*, 70 F.4th 759, 769 (4th Cir. 2023) ("*Synopsys II*"); *see also Ruckelshaus v. Monsanto Co.,* 467 U.S. 986, 1012 (1984).

In sum, to prevail on a DTSA claim, a plaintiff must establish: "(1) the existence of a trade secret, (2) the trade secret's misappropriation, and (3) that the trade secret implicates interstate or foreign commerce." *dmarcian, Inc. v. dmarcian Eur. BV*, 60 F.4th 119, 141 (4th Cir. 2023) (citing *Oakwood Labs. LLC v. Thanoo*, 999 F.3d 892, 905 (3d Cir. 2021)); *see Samuel Sherbrooke Corp., Ltd. v. Mayer*, 159 F.4th 252, 256 (4th Cir. 2025); *Sysco Mach. Corp. v. DCS USA Corp.*, 143 F.4th 222, 228 (4th Cir. 2025).

Under the DTSA, a person misappropriates trade secrets when he (1) acquires a trade secret that he knows or has reason to know was acquired by improper means, or (2) uses or discloses the

trade secret after acquiring it through improper means. *See Brightview Grp.*, *LP v. Teeters*, 441 F. Supp. 3d 115, 132 (D. Md. 2020) (citing 18 U.S.C. § 1839(5)).

The statutory reference to "improper means" indicates that "'the core' of a misappropriation claim is a 'breach of a duty of trust or confidentiality.'" *Sysco Mach. Corp.*, 143 F.4th at 229 (quoting *Trandes Corp. v. Guy F. Atkinson Co.*, 996 F.2d 655, 660 (4th Cir. 1993)). The plaintiff can show misappropriation "'simply by demonstrating that the defendant acquired [the] trade secret by improper means, even if the plaintiff cannot show use of that trade secret.'" *Brightview Grp.*, 441 F. Supp. 3d at 132 (quoting *Sys. 4, Inc. v. Landis & Gyr, Inc.*, 8 F. App'x 196, 200 (4th Cir. 2001)) (alteration in *Brightview*). In other words, "*acquisition* alone is enough to give rise" to a misappropriation claim. *Md. Physician's Edge, LLC v. Behram*, DKC-17-2756, 2019 WL 4573417, at *5 (D. Md. Sept. 20, 2019) (emphasis in original).

Misappropriation under Maryland law mirrors federal law. *Brightview Grp.*, 441 F. Supp. 3d at 132. Indeed, "[t]he standards for misappropriation of trade secrets under MUTSA and DTSA are nearly identical." *TK Elevator Corp. v. Drzewiecki*, RDB-25-0744, 2025 WL 77611, at *4 (D. Md. Mar. 11, 2025). Like the DTSA, the MUTSA requires a plaintiff to show that the information at issue constitutes "trade secrets and that the defendant misappropriated those trade secrets." *Aarow Elec. Sols. v. Tricore Sys., LLC*, 693 F. Supp. 3d 525, 538 (D. Md. 2023); *see Brightview Grp.*, 441 F. Supp. 3d at 129 (citing 18 U.S.C. §§ 1836(b)(1), 1839(3), 1839(5); C.L. § 11-1201(c)). Under Maryland law, misappropriation includes "[d]isclosure or use of a trade secret of another without express or implied consent by a person who . . . [u]sed improper means to acquire knowledge of the trade secret." C.L. § 11–1203(c)(2) (alterations added).

"The DTSA and the MUTSA define a trade secret in 'substantially the same manner.'"

Aarow Elec. Sols., 693 F. Supp. 3d at 538 (citation omitted); *see ClearOne Advantage, LLC v. Kersen*, 756 F. Supp. 3d 30, 41 (D. Md. 2024)*; Philips N. Am., LLC v. Hayes*, ELH-20-1409, 2020 WL 5407796, at *8 (D. Md. Sept. 9, 2020). But, unlike the DTSA, there is no requirement in the MUTSA that the trade secret be used in or intended for use in interstate or foreign commerce.

In particular, the MUTSA defines a "trade secret" as follows, C.L. § 11-1201(e):

> [I]nformation, including a formula, pattern, compilation, program, device, method, technique, or process, that:
>
> (1) Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and
>
> (2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Of import, a "plaintiff must specify a trade secret with sufficient particularity; simply making 'general allegations in sweeping and conclusory statements' won't do." *Williamson v. Prime Sports Mktg., LLC*, 101 F.4th 302, 315 (4th Cir. 2024) (quoting *Washburn v. Yadkin Valley Bank & Tr. Co.*, 190 N.C.App. 315, 660 S.E.2d 577, 585 (2008)). Indeed, "[i]t is axiomatic—and essential—that a plaintiff asserting a misappropriation of trade secrets claim identify their purported trade secrets with sufficient detail and precision." *Fyfe Co., LLC v. Structural Grp., Inc.*, CCB-13-176, 2016 WL 4662333, at *8 (D. Md. Sept. 7, 2016); *see Aarow Elec. Sols. v. Tricore Sys., LLC*, JKB-22-2363, 2025 WL 660227, at *2 (D. Md. Feb. 28, 2025) ("However, the Court pauses to note its expectation that, at the summary judgment stage of this proceeding, Plaintiff will sufficiently identify the purported trade secrets at issue."); *Albert S. Smyth Co. v. Motes*, CCB-17-677, 2020 WL 4471524, at *3 (D. Md. Aug. 3, 2020) ("It is axiomatic that a plaintiff asserting a misappropriation of trade secrets claim must identify the alleged trade secrets

with sufficient precision."); *Structural Pres. Sys., LLC v. Andrews,* MJG-12-1850, 2014 WL 12738910, at *2 (D. Md. Mar. 26, 2014) ("[A] trade secret plaintiff does not identify its alleged trade secrets with reasonable particularity by merely listing products which it claims contain trade secrets, rather, the plaintiff must identify the trade secrets themselves."); *Decision Insights, Inc McElmurry v. Alex Fergusson, Inc.*, WWD-04-389, 2006 WL 572330, at *17 (M.D.N.C. Mar. 8, 2006) ("[A] plaintiff must identify a trade secret with sufficient particularity so as to enable a defendant to determine exactly what he is accused of misappropriating and whether misappropriation has or is threatened to occur.").

The existence of a trade secret "'ordinarily presents a question of fact to be determined by the fact finder from the greater weight of the evidence.'" *Synopsys II*, 70 F.4th at 769 (quoting *MicroStrategy Inc. v. Li*, 268 Va. 249, 264, 601 S.E.2d 580, 589 (2004)); *see Decision Insights, Inc. v. Sentia Grp., Inc.*, 311 F. App'x 586, 592 (4th Cir. 2009) ("Whether or not a trade secret exists is a 'fact-intensive question to be resolved at trial.'") (quoting *Hoechst Diafoil Co. v. Nan Ya Plastics Corp.*, 174 F.3d 411, 419 (4th Cir. 1999)); *TEKsystems, Inc. v. Perlson*, GLR-24-3084, 2025 WL 3281196, at *11 (D. Md. Nov. 25, 2025) (stating that whether the information "at issue in any given case qualif[ies] as trade secrets is a question of fact") (citing *GTCO Corp. v. Kontron Elektronik GmbH*, 829 F.2d 1119, at *2 (4th Cir. 1987) (unpublished table decision)) (alteration added); *Philips N. Am., LLC v. Little*, BO-20-0657, 2024 WL 218609, at *3 (E.D.N.C. Jan. 19, 2024) (stating that existence of a trade secret "is ordinarily a question [of] fact . . . and, thus, is not typically resolved at summary judgment").

Information constitutes a trade secret only if it has independent economic value derived from being secret. 18 U.S.C. § 1839(3); *Synopsys II*, 70 F.4th at 769. Indeed, "the essence of a

trade secret is that it derives its value from secrecy." *Stromback v. New Line Cinema*, 384 F.3d 283, 305 (6th Cir. 2004). But, the Fourth Circuit has recognized: "Not everything with commercial value constitutes a trade secret." *Synopsys II*, 70 F.4th at 772. Therefore, a plaintiff must "come forward with evidence that its . . . trade secrets had value *because they remain secret.*" *Id.* (emphasis in *Synopsys II*); *see DTM Research, L.L.C. v. AT&T Corp.*, 245 F.3d 327, 332 (4th Cir. 2001) ("[A trade secret's] continuing secrecy provides the value, and any general disclosure destroys the value."); *see also Oakwood Labs. LLC*, 999 F.3d at 913 ("The trade secret's economic value depreciates or is eliminated altogether upon its loss of secrecy[.]").

"Secrecy is a question of fact . . . ." *Trandes Corp.*, 996 F.2d at 664 (citation omitted). To qualify for protection, a trade secret must be "the subject of efforts that are reasonable under the circumstances to maintain its secrecy." 18 U.S.C. § 1839(3)(A); *see* C.L. § 11-1201(e)(2). However, "[w]hen protecting proprietary materials, 'the secrecy . . . need not be absolute. Reasonable precautions to protect the secrecy of a trade secret will suffice.'" *Glynn v. Impact Sci. & Tech., Inc*., 807 F. Supp. 2d 391, 435 (D. Md. 2011) (quoting *Pioneer Hi-Bred Int'l v. Holden Found. Seeds,* 35 F.3d 1226, 1235 (8th Cir. 1994)), *aff'd*, 710 F.3d 209 (4th Cir. 2013). Moreover, secrecy is not forfeited where the owner "reveals the trade secret to another in confidence, and under an implied obligation not to use or disclose it," *Kewanee Oil Co. v. Bicron Corp*., 416 U.S. 470, 475 (1974) (internal quotation marks and citation omitted), or by "a limited public publication for a restricted purpose." *Trandes Corp*., 996 F.2d at 664.

"Information that is public knowledge or that is generally known in an industry cannot be a trade secret." *Ruckelshaus*, 467 U.S. at 1002; *see Edelman Fin. Engines, LLC v. Butera*, DKC 22-1388, 2022 WL 2176850, at *4 (D. Md. June 16, 2022) ("It is axiomatic that publicly available

information is 'generally known,' and thus not a trade secret."). Therefore, in order to be protected as a trade secret, the information in question "must not be of public knowledge or of a general knowledge in the trade or business." *Hoechst Diafoil Co.,* 174 F.3d at 418 (citations omitted). "However, as a matter of common sense, generally known information need not be *exactly* the same as the alleged trade secret." *Microbix Biosystems, Inc. v. Biowhittaker, Inc.*, 172 F. Supp. 2d 665, 674 (D. Md. 2000) (emphasis in *Microbix*). Accordingly, "[i]f . . . there is no substantial difference between the alleged trade secret and what is generally known, there is no protectible trade secret." *Id.* On the other hand, a trade secret may be "comprised of partly or entirely non-secret elements and still merit protection." *SkinMedica, Inc. v. Histogen Inc.,* 869 F. Supp. 2d 1176, 1194 (S.D. Cal. 2012). Thus, "although a trade secret cannot subsist in information in the public domain, it can subsist in a *combination* of such information as long as the combination is itself a secret." *Comprehensive Techs. Intern., Inc. v. Software Artisans, Inc.,* 3 F.3d 730, 736 (4th Cir. 1993) (emphasis in original); *see Motor City Bagels, L.L.C. v. Am. Bagel Co*., 50 F. Supp. 2d 460, 479 (D. Md. 1999).

"Because misappropriation is defined in substantially the same way under the DTSA and the MUTSA, courts typically analyze misappropriation claims under those statutes together." *Rozdilsky v. Liquidity Servs., Inc.*, TDC-22-3355, 2026 WL 482940, at *12 (D. Md. Feb. 20, 2026); *see, e.g.*, *Salomon & Ludwin, LLC v. Winters*, 150 F.4th 268, 273 n.2 (4th Cir. 2025) ("Relying on substantial similarities between the federal and state trade secret statutes, the district court considered them together. And for purposes of this appeal, we do the same."); *ClearOne Advantage, LLC v. Kersen,* 710 F. Supp. 3d 425, 435–36 (D. Md. 2024) (noting that the "definitions of misappropriation in federal and state law also mirror each other" and analyzing a

misappropriation claim under DTSA and MUTSA together); *Brightview Grp.*, 441 F. Supp. 3d at 132–34 (noting that "Maryland defines misappropriation in 'substantially the same manner'" as the DTSA and then analyzing misappropriation claims under DTSA and MUTSA together) (citation omitted). I shall do the same.

Additional principles pertinent to trade secrets are addressed in the Discussion that follows.

III. Discussion

A. Misappropriation of Trade Secrets (Counts I and II)

In Counts I and II of the FAC (ECF 199), plaintiffs assert claims under the DTSA and MUTSA, respectively. *See* ECF 199. In the Motion, defendants advance multiple challenges that, in their view, compel the award of summary judgment with regard to these claims. I address the contentions, in turn.

1. Identification of Trade Secrets

Defendants argue, *inter alia*, that they are entitled to summary judgment because plaintiffs have not identified their trade secrets with the requisite detail and precision. ECF 304 at 14. They maintain that this lack of specificity warrants summary judgment in their favor. *Id.* at 20.

Plaintiffs must "describe the subject matter of [their] alleged trade secrets in sufficient detail to establish each element of a trade secret." *Trandes Corp.*, 996 F.2d at 661; *see Phreesia, Inc. v. Certify Glob., Inc.*, DLB-21-678, 2022 WL 911207, at *10 (D. Md. Mar. 29, 2022). As indicated, plaintiffs identify their trade secrets as follows: [redacted]

[redacted] ECF 325 at 25.

According to plaintiffs, their trade secrets are combination trade secrets. ECF 325 at 24. A combination trade secret involves "'a new arrangement of previously known information.'" Alex Harrell, *Getting Down to the Particulars: Applying the Reasonable Particularity Standard to Trade Secret Disclosures*, 82 TEX. B.J. 582, 582 (2019) (citation omitted). "[A]lthough a trade secret cannot subsist in information in the public domain, it can subsist in a *combination* of such information as long as the combination is itself a secret." *Comprehensive Techs. Intern.*, 3 F.3d at 736 (emphasis in original); *see Motor City Bagels*, 50 F. Supp. 2d at 479.

Compass complains that the exact definition of plaintiffs' trade secrets has been a moving target throughout the litigation. ECF 304 at 14–15. Defendants note that initially plaintiffs' trade secret was "simply that psilocybin might still work to treat depression even if the hallucinations were blocked." *Id.* at 15 (citing ECF 1, ¶ 33). Then, according to defendants, plaintiffs "pivoted" to instead "allege[] that the purported trade secrets were more specifically directed to 'the ***sequential administration*** of a 5-HT2A antagonist followed by psilocybin' and to the '***optimal order, time points, frequency, and dosing*** for the therapy.'" ECF 304 at 15 (quoting ECF 48, ¶¶ 24, 27, 30, 45, 54) (emphases added by defendants)). Defendants equate the changes in plaintiffs' definition of their trade secrets with plaintiffs' "realiz[ation that] Dr. Thompson's general 'hypothesis' was also already well-known." ECF 304 at 15 (alteration added).

Moreover, Compass maintains that it has repeatedly "asked Plaintiffs, their fact witnesses, and their experts to identify the purported trade secret parameters." *Id.* Defendants posit that, "as discovery has proceeded, Defendants' bids for clarity have yielded an even muddier idea of what,

exactly, they have been accused of stealing." *Id.*

Further, defendants assert that despite plaintiffs' earlier representations to the Court that their trade secrets included the "'optimal order, time points, frequency, [and] dosing for the therapy,'" plaintiffs have since admitted that they had no such parameters. (*id.* at 16 (quoting ECF 161 at 22) (alteration added by defendants)). Indeed, defendants contend, ECF 304 at 20, that plaintiffs have failed to identify "optimal parameters" or "***any*** range of values" for dosage and timing parameters. ECF 351 at 10 (emphasis in original).

In support of this contention, defendants emphasize that at Thompson's deposition on September 16, 2025, they "directly asked Dr. Thompson for the 'optimal time points, optimal frequency and optimal dosing for the sequential administration of the two drugs that Compass allegedly misappropriated.'" ECF 304 at 16 (quoting ECF 304-5 at 19). In response, Thompson said, ECF 304-5 at 19: "It depends very much on a number of factors which you haven't specified here. What condition are we looking to treat? Are we looking to treat depression? OCD? Substance abuse? All of these things matter a lot." Further, Thompson was asked "[w]hat exactly [he was] accusing Compass of misappropriating" in regard to these parameters. *Id.* at 20 (alterations added). He answered, *id.*: [redacted]

Defendants also maintain that, at Thompson's deposition, he "conceded that he did not tell Compass the optimal parameters because he, like everyone else, has still not determined what they

are." ECF 304 at 17. Indeed, defendants argue that no one at Terran "had any idea about the 'optimal' parameters." *Id.* at 16. In support of this contention, defendants point to the following exchange, ECF 304-5 at 67–68 (alterations added):[13]

[redacted]

Moreover, defendants assert that plaintiffs' experts "dispute whether 'optimal' parameters are even possible." ECF 304 at 16. They point to statements of Dr. Frederick Barrett, a technical expert for plaintiffs, indicating that [redacted] ECF 321-25, Barrett Reply Report, at 77. Defendants also claim that plaintiffs have since "retreat[ed] from specific parameters," and plaintiffs' most recent "attempt to identify their trade secrets lacks any specificity at all." ECF 304 at 18.

Dr. Barrett holds a Ph.D. "in Psychology with a specialization in perception, cognition, and

[13] In quoting this exchange, defendants omitted the objection of plaintiffs' counsel, without any indication that any text was removed. *See* ECF 304 at 17–18.

cognitive neuroscience as well as quantitative methods [from] the Department of Psychology and the Center for Mind and Brain at the University of California, Davis." ECF 304-2, Barrett Opening Report, at 7 (alteration added). He has worked at Johns Hopkins University School of Medicine since 2015, where he has "served as an Instructor, Assistant Professor, and Associate Professor in the Department of Psychiatry and Behavioral Sciences" and as a "Director and an Associate Director of the Center for Psychedelic and Consciousness Research." *Id.* Dr. Barrett's "current research involves the joint application of cognitive and affective neuroscience, behavioral pharmacology, and computational modeling approaches to investigate the acute and enduring therapeutic effects of classic and atypical psychedelic drugs in both healthy individuals and patients with mood and substance use disorders." *Id.* at 8.

In Dr. Barrett's Opening Report, ECF 304-2, he defines the "Psilocybin Trade Secrets" as

[redacted] *Id.* at 19.

Dr. Barrett's report also addresses "whether Dr. Scott Thompson's discoveries and research are trade secrets"; "whether there is evidence that Defendants misappropriated those discoveries and research"; and "whether there is evidence that those discoveries and research were unfairly and improperly disclosed in the '611 patent application." *Id.* at 8–9. In addition, Dr. Barrett explains that he was asked by plaintiffs to consider "whether the Psilocybin Trade Secrets . . . were

publicly known prior to August 2019 when Plaintiffs allege that Defendants misappropriated them." *Id.* at 9. He opines that "they were not." *Id.*

According to defendants, because Dr. Barrett's articulation of the trade secrets lacks specific timings and doses, the definition "is nothing but a suggestion to do standard experiments to determine timings and doses that 'could' work." ECF 304 at 18. And, defendants contend that plaintiffs have admitted during discovery [redacted] *Id.* at 18–19. Therefore, defendants aver: "Dr. Thompson's unproven hypothesis, with nothing more than a plan to perform generally-known experiments cannot give rise to a protectible trade secret." *Id.* at 19.

In sum, defendants maintain: "Plaintiffs' trade secret whack-a-mole of having optimal parameters and then not has stymied Defendants' ability to defend themselves in this case . . . ." *Id.* at 20. They argue that the present record is insufficient to allow the Court to determine whether plaintiffs even possessed protectable trade secrets to be misappropriated, and therefore summary judgment in defendants' favor is warranted. *Id.*

Plaintiffs counter that, as a threshold matter, "'whether a trade secret exists is generally a fact-intensive question to be resolved at trial.'" ECF 325 at 22–23 (quoting *Steves & Sons, Inc. v. JELD-WEN, Inc.,* REP-16-545, 2018 WL 1796293, at *10 (E.D. Va. Apr. 16, 2018)). They posit: "The key consideration is whether Plaintiffs sufficiently identify the trade secrets to allow a jury to meaningfully evaluate them." ECF 325 at 23. Plaintiffs insist that they have done so. ECF 325 at 22–23.

Specifically, plaintiffs argue that defendants "ignore the combination nature of Plaintiffs'

trade secrets." *Id.* at 24. They also contend that they have "identified sequential administration and a range of values for timing, dosing, and frequency." *Id.* Moreover, plaintiffs maintain that "a plaintiff 'need not precisely define the boundaries' of its trade secret to warrant protection, nor does it need to specifically identify every individual component of its combination trade secret to sufficiently identify the combination as a whole." *Id.* (quoting *Zunum Aero, Inc. v. Boeing Co.*, 2025 WL 2364602, at *1 (9th Cir. Aug. 14, 2025)). Therefore, according to plaintiffs, they need not identify a "singular value," as "[t]he optimal dosing, timing and frequency will . . . constitute a range of values that vary relative to each other and depend[] on, *inter alia*, the specific form of psilocybin and 5-HT2A antagonist that is used to achieve that end result." ECF 325 at 24.

According to plaintiffs, they have offered "enough evidence from which a reasonable jury could determine the existence of a viable trade secret." *Id.* at 25. They reiterate that "there is no single optimal dose or time interval, but rather a range of values for those parameters dependent on a variety of factors, such as the specific antagonist being used." *Id.* (first citing ECF 321-25 at 15 [redacted] then citing *id.* at 26 [redacted]; ECF 321-30 at 15 [redacted]; *see also* ECF 321-25 at 76 [redacted]. Moreover, plaintiffs point to Thompson's

statements at his deposition "regarding examples of values within that range and the specifics of how to extrapolate from those values to get the entire range, all of which he asserts were disclosed to Compass and included in the '611 application." ECF 325 at 26 (citing, *inter alia*, ECF 321-30 at 16, 17, 75)

In addition, plaintiffs dispute defendants' contention that the definition of plaintiffs' trade secrets has changed over time. ECF 325 at 26. They point to Dr. Barrett's deposition, in which he "laid out extensively how his definition of the trade secrets is consistent with the definition in the current and previous versions of the complaint as well as Dr. Thompson's articulation of the trade secrets." *Id.* (citing, *inter alia*, ECF 321-74, Barrett Deposition, at 27).

Likewise, plaintiffs reject defendants' argument that the trade secrets lack specificity because plaintiffs have not carried out human studies. *See* ECF 304 at 17–18. They assert: "There is no requirement that a trade secret must be shown definitively to be effective in humans to warrant protection." ECF 325 at 26.

In sum, plaintiffs contend that defendants raise "a factual dispute on which a reasonable jury could agree with Plaintiffs and their expert." *Id.*

Both sides refer (ECF 304 at 15; ECF 325 at 23–24) to the Court's ruling in June 2025, with respect to Compass's "Motion to Require Trade Secret Identification" (ECF 149). *See* ECF 161; ECF 162; *Terran Biosciences, Inc. v. Compass Pathfinder Ltd.*, ELH-22-1956, 2025 WL 1582195 (D. Md. June 3, 2025) (same). There, the Court found that the TAC (ECF 81), which was then the operative complaint, sufficiently described the trade secrets with reasonable particularity. *Terran Biosciences*, 2025 WL 1582195, at *10. The Court observed: "Reasonable particularity does not require absolute particularity." *Id.* The Court also found that plaintiffs' reference to the

optimal order, time points, frequency, and dosing for the therapy was "sufficiently particularized for [that] stage of the litigation." *Id.* at *12 (alteration added). Further, the Court reasoned that plaintiffs' disclosure was sufficient to "'(1) put defendant on notice of the nature of the plaintiff's claims and (2) allow defendant to discern the relevancy of any requested discovery to its trade secrets.'" *Id.* (quoting *Structural Pres. Sys., LLC v. Andrews*, MJG-12-1850, 2013 WL 12244886, at *4 (D. Md. Dec. 7, 2013)). Accordingly, the Court concluded that, "at this juncture, plaintiffs have provided sufficient information" and defendants could "seek more specific information during discovery." *Terran Biosciences*, 2025 WL 1582195, at *13.

As noted, defendants complain that they have asked plaintiffs "[o]ver and over again . . . to identify the purported trade secret parameters," to no avail. ECF 304 at 15. For their part, plaintiffs contend that the "Court already rejected Defendants' argument that Plaintiffs 'must identify what time points, frequency, and dosing they claim to be their trade secrets' in order to have identified the trade secrets with particularity." ECF 325 at 23 (quoting *Terran Biosciences*, 2025 WL 1582195, at *11). In plaintiffs' view, "the Court expressly recognized that the trade secrets are a 'combination' trade secret composed of Thompson's interrelated discoveries and 'are relatively narrow, in that they are tied to a specific sequential therapy involving specific chemical compounds.'" ECF 325 at 23 (quoting *Terran Biosciences*, 2025 WL 1582195, at *12). They emphasize that the Court stated that it was "'amply satisfied that the TAC describes, with reasonable particularity, the alleged trade secrets.'" ECF 325 at 23 (quoting *Terran Biosciences*, 2025 WL 1582195, at *10).

Plaintiffs bear the "burden of producing *some* evidence" that the information meets the definition of a trade secret. *Trandes Corp.*, 996 F.2d at 661 (emphasis in *Trandes Corp.*). "The

clearest Fourth Circuit guidance states, at the summary judgment stage, that the plaintiff must 'describe the subject matter of its alleged trade secrets in sufficient detail to establish each element of a trade secret.'" *Phreesia*, 2022 WL 911207, at *11 (quoting *Trandes Corp.,* 996 F.2d at 661). Accordingly, "[f]ailing to prove the existence of a 'trade secret' dooms a misappropriation claim." *Synopsys II*, 70 F.4th at 769 (citing *Trandes Corp.*, 996 F.2d at 661) (observing that plaintiff does not satisfy his burden merely by identifying something that "could qualify as trade secrets"; plaintiff must come forward with "evidence that these items met the definition of a trade secret").

Defendants are correct that, even if plaintiffs' trade secrets are characterized as combination trade secrets, the trade secrets must be identified with particularity. *SL Montevideo Tech., Inc. v. Eaton Aerospace, LLC*, 491 F.3d 350, 354 (8th Cir. 2007) ("Simply to assert a trade secret resides in some combination of otherwise known data is not sufficient, as the combination itself must be delineated with some particularity in establishing its trade secret status.") (cleaned up) (citations omitted). "Although a plaintiff must identify its claimed trade secrets at trial with sufficient specificity to allow the jury to determine whether the information meets the statutory definition of a trade secret, it need not precisely define the boundaries of each claimed trade secret." *Zunum Aero*, 2025 WL 2364602, at *1 (internal citations omitted). Nor must a plaintiff identify "individual components of [the] combination trade secret . . . with enough specificity to constitute trade secrets when read individually." *Steves & Sons*, 2018 WL 1796293, at *8.

To be sure, plaintiffs have not identified specific dosages and time intervals for a particular antagonist. But, plaintiffs have arguably identified the method in which one could determine the optimal parameters. *See, e.g.,* ECF 321-30 at 17 [redacted]

[redacted]; ECF 304-5 at 67–68 (stating that [redacted]). However, the articulation of plaintiffs' trade secrets is not, as defendants contend, a bare invitation "to do standard experiments." ECF 304 at 18. Rather, plaintiffs specify the sequential (rather than simultaneous) nature of the protocol, the order of administration (antagonist first, psilocybin second), the relationship between the two doses, and the principle that governs that relationship (the antagonist's pharmacokinetics).

In this regard, Dr. Barrett's expert opinion is also relevant. He has stated that [redacted] ECF 321-25 at 26.

I am not persuaded that the identification of a numerical range of values is necessary for the identification of the trade secrets with sufficient particularity. Indeed, plaintiffs assert that timing and doses are [redacted] ECF 325 at 25. Notably, a factfinder presented with the information outlined above could meaningfully evaluate what plaintiffs claim and assess it in light of information in the public domain. And, that is what reasonably particular identification requires. *MicroStrategy Inc. v. Bus. Objects, S.A.*, 331 F. Supp. 2d 396, 418 (E.D. Va. 2004).

As indicated, "whether a trade secret exists is generally a fact-intensive question to be

resolved at trial." *Steves & Sons*, 2018 WL 1796293, at *10. A jury may ultimately determine that plaintiffs' identification of the parameters as a range of timings and dosages that change depending on certain variables is too general to be classified as a trade secret. *See* ECF 325 at 24. Nevertheless, plaintiffs' articulation of their trade secrets, set forth above, is sufficiently particular to allow a jury to evaluate them and for defendants to defend against plaintiffs' allegations. The evidence before the Court demonstrates a factual dispute that must go to the jury.

Nor does the fact that plaintiffs have yet to conduct a human study compel summary judgment in favor of defendants. *See* ECF 325 at 26. Defendants rely on Thompson's concession that, as of his deposition, [redacted] ECF 304-5 at 67–68. But, that concession does not bear on whether plaintiffs have identified their claimed trade secrets with sufficient particularity. Rather, it concerns whether plaintiffs possess a fully optimized, human-validated product. Moreover, whether experiments must be carried out on humans to constitute a trade secret is not a requirement grounded in the law.

In any event, the same testimony on which defendants rely reflects that Thompson identified examples of values within the claimed range. He also described how one would extrapolate from those values to derive the range as a whole. And, he asserts that all of this information was disclosed to Compass and reflected in Compass's '611 Application, filed on August 29, 2019. *See* ECF 321-54, Thompson Deposition, at 10–11 (describing sharing his discovery of [redacted] how one would determine that, and then all of the data that we had, including the preliminary data that we had"); ECF 321-52 at 3 (document that Thompson shared

with Compass stating [redacted]).

Defendants' argument that plaintiffs' definition of the trade secrets has been a "moving target" over the course of the litigation is likewise insufficient to justify summary judgment. ECF 304 at 14. The evolution of plaintiffs' articulation of their trade secrets, from the more general formulation in the original Complaint to the narrower combination now asserted, may bear on the credibility of plaintiffs' position and is fair ground for examination at trial. But, Dr. Barrett averred at his deposition that his definition is consistent with the operative and prior versions of the suit and with Thompson's own articulation. ECF 321-74 at 27. On this record, which I must view in favor of plaintiffs, a reasonable jury could credit Dr. Barrett's account of consistency. In other words, the asserted inconsistency presents a factual dispute, not a basis for summary judgment.

In sum, I am satisfied that plaintiffs have provided a definition of their trade secrets that is sufficient "to allow the finder of fact to distinguish that which is legitimately a trade secret from other information that is simply confidential but not a trade secret, or is publicly available information." *MicroStrategy*, 331 F. Supp. 2d at 418. Therefore, summary judgment in favor of defendants is not warranted on the ground that plaintiffs have failed to identify their trade secrets with the requisite detail and precision.

2. Generally Known or Readily Ascertainable

Defendants contend that they are entitled to summary judgment because plaintiffs' alleged trade secrets were generally known or really ascertainable before defendants filed the '611 Application.

Information is a trade secret if it "derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, another person who can obtain economic value from the disclosure or use of the information." 18 U.S.C. § 1839(3); *see also* C.L. § 11-1201(e). Accordingly, "[i]nformation that is public knowledge or that is generally known in an industry cannot be a trade secret." *Ruckelshaus*, 467 U.S. at 1002; *see Hoechst Diafoil Co.*, 174 F.3d at 418 ("There is no doubt that, in order to be protected as a trade secret, the information in question 'must be secret, and must not be of public knowledge or of a general knowledge in the trade or business.'") (quoting *Kewanee Oil Co.*, 416 U.S. at 475); *Edelman Fin. Engines, LLC,* 2022 WL 2176850, at *4 ("It is axiomatic that publicly available information is 'generally known,' and thus not a trade secret."). "However, as a matter of common sense, generally known information need not be *exactly* the same as the alleged trade secret." *Microbix Biosystems*, 172 F. Supp. 2d at 674 (emphasis in *Microbix*). But, "[i]f . . . there is no substantial difference between the alleged trade secret and what is generally known, there is no protectible trade secret." *Id.*

In particular, defendants contend that plaintiffs' trade secrets were generally known and readily ascertainable as early as May 2016, when Carhart-Harris published his study titled *Psilocybin with Psychological Support for Treatment-Resistant Depression: An Open-Label Feasibility Study*. *See* ECF 304 at 21 (citing ECF 304-13 at 2). They maintain that Carhart-Harris's study "establish[ed] 'preliminary support for the safety and efficacy of psilocybin for treatment-resistant depression,' which would 'motivate further trials . . . to better examine the therapeutic potential of this approach.'" ECF 304 at 21. (quoting ECF 304-13 at 2).

Defendants also claim that the work of Carhart-Harris "set the field abuzz with discussion

of psilocybin as a viable antidepressant treatment, and with inquiries into various avenues for learning more about its mechanism of action, including the role of the 5-HT2A receptor and the psychedelic experience." ECF 304 at 21 (citing ECF 304-14, Roth Declaration, at 23). On September 9, 2016, Carhart-Harris wrote to Goldsmith and Malievskaia to propose a "3-arm randomised study in healthy volunteers" to compare the effects of "30 mg psilocybin v 30mg psilocybin post ketanserin pre-treatment v 40 mg methylphenidate." ECF 304-16 at 2.

Further, defendants assert that "Thompson's alleged 'discoveries' or untested 'hypotheses' were also 'discovered' and 'hypothesized' by many others in the field (including at Compass) long before the parties met in 2019." ECF 304 at 21. They point out that on April 9, 2019, Malievskaia wrote to two Compass employees, proposing "a pilot: psilocybin and selective 5ht2a blocker (ketanserin[] where available) in depressed patients to see if the symptoms improve in the absence of psychedelic effects?" ECF 304 at 22 (citing ECF 304-18 at 3). And, discussions between Thompson and Compass did not begin until May 2019. *See* ECF 321-44.

In addition, defendants flag the dissertation of Dr. Drummond McCulloch (ECF 304-19), who joined Compass as an intern in June 2019. ECF 304 at 22, 33. According to defendants, McCulloch's dissertation, which was completed in 2019, "proposed the study of Dr. Thompson's alleged 'discovery'". *Id.* at 22.[14] There, McCulloch stated: "To definitively prove that the antidepressant effects of psychedelics are through activation of the 5-HT2A receptor, a clinical trial of placebo vs psychedelic vs psychedelic + ketanserin (a selective 5-HT2A antagonist) in the

[14] The document reflects that it was an undergraduate submission. ECF 304-19 at 2. At the time, McCulloch was an undergraduate student in Scotland. *Id.* To the Court's understanding, in the United Kingdom the term "dissertation" usually refers to an undergraduate or master's degree research project and the term "thesis" refers to a doctoral research project.

treatment of depression should be performed . . . ." ECF 304-19 at 69.

Defendants also cite the Perez Patent, published by a Spanish lab on May 2, 2019. ECF 304 at 29 (citing ECF 304-43). As defendants put it: "That application publicly disclosed to anyone with a web browser Dr. Thompson's alleged 'discovery' that the administration of a 5-HT2A antagonist (including ketanserin) and psilocybin could be used for the treatment of depression without hallucinations." ECF 304 at 29.

As noted earlier, the Perez abstract provides, ECF 304-43 at 3:

> The present application provides a combination product for the treatment and/or prevention of psychiatric and/or neurological disorders. The combination product comprises (i) a compound which promotes neurogenesis and has hallucinogenic and/or psychedelic side effects. and (ii) a 5-HT2A receptor antagonist which alleviates and/or removes the hallucinogenic and/or psychedelic side effects caused by the first compound.

As mentioned, Thompson filed his '090 Application, titled "Methods of Treating Psychological and Brain Disorders," a few months later, on August 13, 2019. ECF 304-39. And, the University claimed priority over this patent on September 8, 2022, which changed the application number to '950. ECF 304-44 at 4, 5. As defendants put it, the '950 Application was "rejected by both the [PTO] and the International Searching Authority" because Dr. Thompson's "ideas ***were obvious in light of Perez***." ECF 304 at 29 (emphasis in ECF 304).

In fact, the PTO rejected several of Thompson's claims on the ground that they were "anticipated by Perez." ECF 304-44 at 74. The PTO said, *id.*:

> Perez et al. teach a pharmaceutical combination of a compound of formula I and a 5-HT2A receptor antagonist (claim 1) for the use in the treatment of depression (claim 9). A preferred compound of formula I is psilocybin (page 18, line 25), which can be extracted from mushrooms (page 19, lines 15-16). A preferred 5-HT2A receptor antagonist is ketanserin (claim 4). The compound of formula I and 5-HT2A receptor antagonist can be administered together or separately (page 12, lines 24-25). The 5 HT2A receptor antagonist alleviates or

removes the hallucinogenic side effects of the compound of formula I (abstract).

Further, the PTO explained, *id.* at 76–77:

> Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed invention was made, to have used psilocybin that has been extracted from the claimed mushroom and/or truffle in the method of treating major depression, psychotic depression, or postpartum depression, as taught by Kucuksen, by administering the pharmaceutical combination of the compound of formula I (psilocybin) and the 5-HT2A receptor antagonist (ketanserin), as taught by Perez.
>
> A person of ordinary skill in the art would have been motivated to use psilocybin that has been extracted from the claimed mushroom and/or truffle because both Perez and Kucuksen teach that psilocybin is primarily found and extracted from these mushrooms and truffles. A person of ordinary skill in the art would have been motivated to treat major depression, psychotic depression, or postpartum depression because Perez teaches that the treatment of depression, in general. Furthermore, both Perez and Kucuksen teach that psilocybin is useful in the treatment of these specific types of depression. Therefore, one of ordinary skill in the art would have had a reasonable expectation of success in treating major depression, psychotic depression, or postpartum depression by administering pharmaceutical combination of psilocybin and ketanserin.

On September 11, 2023, UMB's attorney requested reconsideration, amending one of the claims at issue "to recite a method of treating depression with ketanserin and psilocybin, wherein 'the psilocybin is administered 60 minutes after the administration of the ketanserin' and that 'the depression is major depression, psychotic depression, treatment-resistant depression (TRD), or postpartum depression.'" *Id.* at 80. The University's lawyer averred, *id.*: "Such features are not taught in Perez et al., thereby rendering the rejection under 35 U.S.C. 102(a) moot."

However, the PTO again rejected Thompson's claims in a final action dated September 28, 2023. *Id.* at 82, 85. The PTO acknowledged that "Perez et al. fail to specifically teach the claimed depression types and psilocybin being administered 60 minutes after ketanserin." *Id.* at 86. But, the PTO concluded that, regardless, "it would have been prima facie obvious to a person of

ordinary skill in the art, at the time the claimed invention was made, to have administered psilocybin about 60 minutes after administering ketanserin in the method of treating major depression, psychotic depression, or postpartum depression." *Id.*

Nevertheless, plaintiffs contend that there are genuine disputes of material fact concerning whether their trade secrets were generally known. ECF 325 at 27. First, they describe defendants' examples as "cherry-picked," referencing the Carhart-Harris publication in May 2016 and Carhart-Harris's proposed study sent to Malievskaia in September 2016, the internal Compass proposal by Malievskaia in April 2019 to study psilocybin and ketanserin, and McCulloch's 2019 dissertation. *Id.* at 28. According to plaintiffs, these examples do not "demonstrate[] the trade secrets were 'generally known.'" *Id.* Second, they reiterate that the asserted trade secrets are a "***combination*** of Thompson's discoveries." *Id.* at 31 (emphasis in original). In plaintiffs' view, even if "certain high-level components" were generally known, "a triable issue of fact exists" because none of defendants' "examples demonstrate[s] that the combination of Thompson's discoveries, which comprise the Psilocybin Trade Secrets, were generally known." ECF 325 at 31.

In particular, plaintiffs maintain that Carhart-Harris's 2016 publication did not disclose their trade secrets. *Id.* at 29. They argue "that, even today, many in the field, including in Compass, continue to believe that the hallucinatory effects of psilocybin are critical to its therapeutic action." *Id.* (citing ECF 321-43 at 39) ("Q [by plaintiffs' counsel]: Okay. And from your perspective . . . the psychedelic experience or the mechanism of change is necessary to the therapeutic or antidepressant effect of psilocybin? A [by Malievskaia]: All research that has been done up until now supports that."); ECF 321-2, Roth Supplemental Rebuttal Report, at 74 ("[O]ne can reasonably assume that blocking the psychedelic actions of psilocybin in humans will also

block its therapeutic actions.")). That belief, argue plaintiffs, "is precisely the opposite of Dr. Thompson's discovery." *Id.* at 30

Moreover, plaintiffs contend that the email from Carhart-Harris to Goldsmith and Malievskaia in September 2016, in which Carhart-Harris proposed a study involving the administration of "30 mg psilocybin v 30mg psilocybin post ketanserin pre-treatment v 40 mg methylphenidate" in healthy volunteers (ECF 304-16 at 2), does not disclose the trade secrets, and therefore does not show that they were generally known. ECF 325 at 30. Rather, plaintiffs explain that "this study involved healthy volunteers rather than patients suffering from depression, there is no explanation of what 'pre-treatment' means in this context, and there is no indication that the goal of Carhart-Harris's study was to determine whether sequentially administering ketanserin followed by psilocybin could treat depression without hallucinations (*i.e.*, Thompson's discovery)." *Id.* In addition, plaintiffs observe that defendants "have provided no evidence that the study was published or even run, such that the proposal could be 'generally known.'" *Id.*

Plaintiffs point to the opening expert report of Dr. Barrett (ECF 304-2) to support their position. ECF 325 at 30. Dr. Barrett reviewed the email from Carhart-Harris to Goldsmith and Malievskaia and opined: [redacted] ECF 321-3 at 82. Therefore, he concludes that they are [redacted] *Id.*

Nor do plaintiffs view Malievskaia's internal Compass email "suggesting a pilot study on 'psilocybin and selective 5ht2a blocker (ketanserine where available) in depressed patients to see if the symptoms improve in the absence of psychedelic effects'" as demonstrating that the trade secrets were generally known. ECF 325 at 30–31 (quoting ECF 304-18 at 3). According to

plaintiffs, "Malievskaia admitted that she was not proposing a study similar to Dr. Thompson's discoveries, but rather just an early stage 'idea[]'" that "was never even run." ECF 325 at 31 (quoting ECF 321-43 at 69). Likewise, Dr Barrett concludes in his expert report that Malievskaia's "email does not disclose the trade secrets" because it fails to [redacted] ECF 321-25 at 60.

Plaintiffs also maintain that McCulloch's dissertation (ECF 304-19) does "not demonstrate that Thompson's discoveries were 'generally known.'" ECF 325 at 31. They assert: "Defendants rely upon a single sentence in a 100-page literature review concerning a hypothesis that is the ***exact opposite*** of Thompson's discovery." *Id.* (emphasis in ECF 325). Supporting this position, Dr. Barrett observes: [redacted] ECF 321-25 at 60 (quoting ECF 304-19 at 69). Dr. Barrett concludes: "It is my opinion that this thesis does not disclose the trade secrets." ECF 321-25 at 60.

Likewise, plaintiffs dispute defendants' view of the PTO's rejection of the '090 and '950 Applications based on Perez. To be sure, the PTO rejections appear damaging to plaintiffs' claim of secrecy. But, plaintiffs argue that "it is well-established that 'it does not follow as a matter of law that something rejected by the PTO as obvious can never be part of a protectable trade secret.'" ECF 325 at 32 (quoting *SkinMedica*, 869 F. Supp. 2d at 1195). Plaintiffs add that the emphasis on patent law is misleading in a case concerning trade secrets. ECF 325 at 32–33. They explain, *id.*, that unlike a patent, "a trade secret need not be novel or unobvious," *id.* at 32 (quoting *Learning*

Curve Toys, Inc. v. PlayWood Toys, Inc., 342 F.3d 714, 724 (7th Cir. 2003) (internal quotation marks omitted)), and "may [be] comprised of partly or entirely non-secret elements and still merit protection." ECF 325 at 33 (citing *SkinMedica*, 869 F. Supp. 2d at 1194) (alteration added).

Defendants' technical expert, Dr. Roth, opines that Perez disclosed the purported trade secrets in full before May 16, 2019, the date on which Zarate introduced Gould to Malievskaia. ECF 304-14 at 33. Dr. Roth obtained both an M.D. and a Ph.D. in Biochemistry in 1983 from the St. Louis University School of Medicine, and he has served as a Professor of Pharmacology and Medicinal Chemistry at the University of North Carolina at Chapel Hill Medical School since 2006. ECF 321-2 at 12. He represents that he has "more than 40 years of experience investigating the pharmacology and clinical utility of central nervous system ('CNS') disorders and therapeutics with a special interest in psychedelics and serotonergic signaling." *Id.* at 11. Dr. Roth concludes that defendants "did not misappropriate any purported trade secrets." *Id*.

Plaintiffs draw on the opinions of their technical expert, Dr. Barrett,[15] to refute Dr. Roth's opinions. ECF 325 at 32–34. Dr. Barrett concludes that Perez does not disclose the trade secrets. He avers, in statements that defendants do not seek to exclude: [redacted] ECF 321-25 at 51. Further, he states, *id*. at 79 (emphasis in original): [redacted]

[15] I previously reviewed Dr. Barrett's expert qualifications.

[redacted]

Plaintiffs identify what they regard as an important distinction between the alleged trade secrets and Perez: the former encompass a range of dosages, which they shared with Compass, but which were not disclosed in Perez. ECF 325 at 33. Plaintiffs also emphasize that "Compass conducted their own prior art search when considering Thompson's proposal in May 2019—***after*** Perez published—and concluded that Thompson's proposed experiments concerning the trade secrets were ***unique***." *Id.* (emphasis in ECF 325).

Indeed, plaintiffs posit that the "difference between Compass's pre-litigation conduct and the positions it takes here speaks volumes." *Id.* at 34. According to plaintiffs, the record demonstrates "that Compass believed that Thompson's discoveries were not generally known in 2019." *Id*. at 28 Plaintiffs assert, *id.*: "Defendants plainly believed the trade secrets were novel at the time they submitted the '611 application in 2019, covering the trade secrets at issue here." Plaintiffs also point to Compass's discussions with Thompson as evidence that defendants "recognized the unique value that Dr. Thompsons' discoveries added to the field . . . ." *Id.*

In sum, plaintiffs insist: "It is for the 'jury to decide the fact-intensive question of whether these patent applications, or the referenced prior art, made the [trade secrets]—all elements in combination—generally known.'" *Id.* at 34 (quoting *SkinMedica*, 869 F. Supp. 2d at 1195) (alteration added by plaintiffs).

The review above reflects that the parties disagree about whether plaintiffs' claimed trade secrets were generally known or readily ascertainable. *See* 18 U.S.C. § 1839(e); C.L. § 11-1201(e). At summary judgment, the court determines only whether there is a genuine dispute of

material fact as to the issue. Here, each side relies on its experts, and the experts fundamentally disagree over whether plaintiffs' trade secrets were disclosed.

As noted, Dr. Barrett opines that the Carhart-Harris publication (ECF 304-13), the proposed study submitted to Compass via email by Carhart-Harris in September 2016 (ECF 304-16 at 2), the internal Compass email from Malievskaia suggesting a pilot study (ECF 304-18 at 3), and McCulloch's dissertation and proposed study (ECF 304-19) do not disclose plaintiffs' trade secrets. ECF 321-3 at 81–82; ECF 321-25 at 59–60. Similarly, Dr. Barrett analyzes differences between the Perez Patent and the alleged trade secrets before concluding that sufficient differences between the two demonstrate that Perez does not disclose the trade secrets. ECF 321-25 at 51, 79.

Dr. Roth disagrees. He opines that Perez discloses the asserted trade secrets. ECF 321-1 at 56 ("Dr. Barrett states that the purported trade secrets were not disclosed in Perez. I disagree.") (citation omitted). Dr. Roth also disagrees with Dr. Barrett's conclusion "that neither literature nor any patents disclosed the purported trade secrets prior to Dr. Thompson's communications with Compass." *Id*.

The parties have not moved to exclude these particular statements of the experts. *See* ECF 308; ECF 322. Thus, the proffered evidence sets up a classic "battle of the experts." It is well settled that on summary judgment the court may not "weigh the evidence or make credibility determinations." *Jacobs*, 780 F.3d at 569; *see also Anderson*, 477 U.S. at 249; *Lee,* 863 F.3d at 327. Rather, it is for the jury to decide which expert opinion to credit, if any. *See Reyazuddin v. Montgomery Cty.,* 789 F.3d 407, 417 (4th Cir. 2015); *see also Adell Plastics, Inc. v. Mt. Hawley Ins. Co.*, JKB-17-0252, 2019 WL 2524916, at *6 (D. Md. June 19, 2019) ("As in other cases involving multiple experts, testifying with contradictory evidence and opinions, it will be 'for the

jury to decide which expert to believe' . . . .") (quoting *Newman v. State Farm Fire & Cas. Co.*, 290 F. App'x 106, 115 (10th Cir. 2008)).

Moreover, with respect to the Perez Patent, it is important to observe the distinction between patentability and trade secrecy. Patentability requires novelty and nonobviousness, 35 U.S.C. §§ 102, 103, whereas trade secret protection, strictly speaking, requires neither. *See Learning Curve Toys*, 342 F.3d at 724; *SkinMedica*, 869 F. Supp. 2d at 1194. "[T]he hallmark of a trade secret is not its novelty but its secrecy." *Avtec Sys., Inc. v. Peiffer,* 21 F.3d 568, 575 (4th Cir. 1994). Therefore, "the subject of a trade secret may be novel in the sense that it is something generally unknown in the trade or business, [but] novelty, in the patent law sense, is not required for a trade secret." *Decision Insights*, 311 F. App'x at 592 (alteration added); *see also Kewanee Oil Co*., 416 U.S. at 476 ("Novelty, in the patent law sense, is not required for a trade secret.").

The question here is whether the information was "generally known" or "readily ascertainable by proper means." 18 U.S.C. § 1839(3)(B); C.L. § 11-1201(e)(1). As stated, trade secrets may be "comprised of partly or entirely non-secret elements and still merit protection." *SkinMedica*, 869 F. Supp. 2d at 1194. In my view, defendants conflate the distinct inquiries of patentability and trade secrecy when they argue that the PTO finding disposes of the [redacted] basis on which plaintiffs' asserted combination depends.

To be sure, the decision of the PTO examiner is a fact that the jury may consider. *See Cooper Notification, Inc. v. Twitter, Inc.*, 867 F. Supp. 2d 485, 492 (D. Del. 2012); *TecSec, Inc. v. Int'l Bus. Machines Corp.*, 763 F. Supp. 2d 800, 817 (E.D. Va. 2011), *aff'd*, 466 F. App'x 882 (Fed. Cir. 2012). And, defendants are free to urge the jury to do so. But, even though a patent examiner is "deemed to have experience in the field of the invention," the examiner's

determination is not dispositive. *In re Sang Su Lee*, 277 F.3d 1338, 1345 (Fed. Cir. 2002); *see Badalamenti v. Dunham's, Inc.,* 680 F. Supp. 256, 260 (E.D. Mich.), *aff'd*, 862 F.2d 322 (Fed. Cir. 1988) ("On the basis of the evidence before the courts, the courts can and do decide differently from the PTO examiner.") (citing *Tyler Refrigeration v. Kysor Indus. Corp.,* 777 F.2d 687, 690 (Fed.Cir.1985)).

The PTO assessment that, on the basis of Perez, it "would have been prima facie obvious . . . to have administered psilocybin about 60 minutes after administering ketanserin," may support a dispositive conclusion in the patent context. ECF 304-44 at 86. However, that finding does not compel the conclusion that the alleged trade secrets were generally known. *See SkinMedica*, 869 F. Supp. 2d at 1195 (concluding that PTO findings do not establish, as a matter of law, that trade secrets are generally known). The jury may decide to credit the opinion of Dr. Barrett, rather than the PTO, and, if it does so, the predicate for treating Perez as a readily ascertainable disclosure of plaintiffs' specific combination evaporates.

Further, defendants' own actions support the existence of a genuine dispute of material fact with regard to whether the trade secrets were generally known. ECF 325 at 33. For example, in its "Response to Todd Gould-Scott Thompson Proposal," which was disseminated on June 18, 2019, Compass, a biotechnology company involved in the very field at issue, wrote, ECF 321-58 at 2: "Overall, we believe that your proposal focuses on some very interesting and important questions. To our knowledge, these studies would provide the first direct evidence for the requirements (or not) of AMPAR and/or 5-HT2R function in the antidepressant actions of psilocybin." And, in an email on June 4, 2019, Whelan, an intern at Compass, wrote to other Compass employees with regard to Thompson's proposal, stating: "**None of the experiments**

have been done before exactly as they are proposed." ECF 321-59 at 2 (emphasis in original).

Compass was not unfamiliar with the field or the relevant research regarding the use of psilocybin to treat depression. Yet, these emails suggest that, at the time, defendants viewed the trade secrets as not generally known.

Defendants' other examples are similarly subject to disputes that foreclose a grant of summary judgment. Defendants are correct that Carhart-Harris's design included not only a healthy-volunteer study, but also a controlled trial for treatment of major depressive disorder. ECF 351 at 16. But, plaintiffs offer evidence that the proposed Carhart-Harris trial for treatment of depression did not include any exploration of 5-HT2A antagonist treatment. ECF 321-3 at 81–82.

Plaintiffs point to evidence, ECF 325 at 30–31, demonstrating that, even now, researchers, including at Compass, believe that the psychedelic experience is necessary to achieve psilocybin's antidepressant effect. *See* ECF 321-43 at 39; ECF 321-2 at 74. In other words, these individuals would not aim to eliminate the hallucinatory effects because they are regarded as essential to achieve the antidepressant benefits. For example, Malievskaia's April 2019 internal email proposed only an early-stage "idea to float" that, according to plaintiffs, was never run and specified no sequence, timing, or dosage. ECF 321-43 at 71–72; ECF 304-18 at 3; ECF 321-25 at 60. And, the McCulloch Proposal advanced a hypothesis that, plaintiffs contend, was the opposite of Thompson's discovery. ECF 304-19 at 69; ECF 321-25 at 60. Whether any of these sources, alone or together, rendered plaintiffs' trade secrets generally known is a question on which the experts disagree. These conflicts are genuine disputes of material fact for the jury, not ones that I may resolve at summary judgment.

Again, at the summary judgment stage, the court is not "to weigh the evidence and

determine the truth of the matter but to determine whether there is a genuine issue for trial." *Anderson*, 477 U.S. at 249. Viewing the record in the light most favorable to plaintiffs, as I must, I conclude that genuine disputes of material fact preclude summary judgment on the element of whether plaintiffs' trade secrets were generally known or readily ascertainable.

3. Reasonable Measures to Ensure Secrecy

Defendants contend that Dr. Thompson failed to take reasonable measures to maintain the secrecy of the alleged trade secrets and, instead, disclosed his alleged discoveries, without restriction. ECF 304 at 22. They argue that a series of disclosures by Thompson to academic colleagues, in a conference abstract and poster, in a grant application, and in a patent filing, extinguished any secret as a matter of law. ECF 304 at 22–28.

As discussed, for a trade secret to be protectable, the owner of that trade secret must "take[] reasonable measures to keep such information secret." 18 U.S.C. § 1839(3)(A); *accord* C.L. § 11-1201(e)(2). However, "[w]hen protecting proprietary materials, 'the secrecy . . . need not be absolute. Reasonable precautions to protect the secrecy of a trade secret will suffice.'" *Glynn,* 807 F. Supp. 2d at 435 (quoting *Pioneer Hi-Bred Int'l*, 35 F.3d at 1235).

Notably, "[t]rade secrets take many forms and what may constitute 'reasonable measures' must be considered in light of the nature of the trade secret and the context in which it exists." *Samuel Sherbrooke Corp.*, 159 F.4th at 257; *see In the Matter of Innovative Const. Sys., Inc.*, 793 F.2d 875, 884–85 (7th Cir. 1986) ("In asking whether particular efforts were reasonably adequate under the circumstances, the jury is called upon in part to exercise their common-sense judgment in determining whether additional measures were necessary to guard the secrecy of the formulas. What may be reasonable measures in one context may not necessarily be so in another."). Secrecy

is not forfeited where the owner "reveals the trade secret to another in confidence, and under an implied obligation not to use or disclose it," *Kewanee Oil Co.*, 416 U.S. at 475 (internal quotation marks and citation omitted), or by "a limited public publication for a restricted purpose." *Trandes Corp.*, 996 F.2d at 664.

Under 35 U.S.C. § 122(b), most non-provisional patent applications are published about eighteen months after the earliest filing date, and publication occurs by operation of statute, regardless of whether a patent ever issues. Once published, a patent application is freely available to the public, and therefore the information it discloses is no longer secret. *See Metron Nutraceuticals, LLC v. Cook*, HNW-23-3596, 2024 WL 3877388, at *16 (6th Cir. Aug. 20, 2024) (stating that "'there is no trade-secret protection for confidential information that is disclosed in a public patent application,' and the trade secret is 'extinguished' once the application is in the public domain.") (citation omitted); *Tewari De-Ox Systems, Inc. v. Mountain States/Rosen, L.L.C.*, 637 F.3d 604, 611–12 (5th Cir. 2011) (a published application, like an issued patent, is readily available, and information disclosed in it is generally known and not secret); *On-Line Tech. v. Bodenseewerk Perkin-Elmer*, 386 F.3d 1133, 1141 (Fed. Cir. 2004) ("After a patent has issued, the information contained within it is ordinarily regarded as public and not subject to protection as a trade secret.").

In particular, defendants assert that Thompson disclosed his alleged discoveries to academics outside the University without any confidentiality protections. *See* ECF 304 at 22–23. For instance, they point to Thompson's communications with Dr. Franz Vollenweider, an academic researcher of depression and antidepressant drugs. *See* ECF 304-21 (email chain in November 2016 between Thompson and Vollenweider regarding psilocybin experiments), at 2.

Defendants also highlight Thompson's communication between 2017 and 2019 with Dr. Barrett, who now serves as plaintiffs' technical expert. *See* ECF 304 at 22–23; ECF 304-23 (email chain in November 2017 between Thompson and Barrett regarding "psilocybin project"). In addition, defendants emphasize that, at Thompson's deposition (ECF 304-5), he admitted that he [redacted] ECF 304 at 22–23 (quoting ECF 304-5 at 30, 40).

Defendants argue that Thompson relied only on his subjective "personal comfort" that these individuals were "'trusted colleagues.'" ECF 304 at 24 (citation omitted). But, they maintain that those individuals had "'no obligation to protect the confidentiality of the information.'" *Id.* at 23 (citation omitted). In their view, plaintiffs cannot establish a confidential relationship. *Id.* at 24 (citing *Allen v. Peacock TV LLC*, BAH-24-971, 2024 WL 3597183, at *1 (D. Md. July 31, 2024) and *Young Design, Inc. v. Teletronics Int'l, Inc.*, LMB-00-970, 2001 WL 35804500, at *5–6 (E.D. Va. July 31, 2001)).

Moreover, defendants contend that Thompson published or permitted the publication of his alleged discoveries before and during his discussions with Compass. ECF 304 at 24. They note that Dr. Hesselgrave, a student in Thompson's lab, submitted an abstract to SFN on May 2, 2019, titled "Taking the Fun Out of Psilocybin: Can Psilocybin's Rapid Antidepressant Action Be Preserved in the Absence of Hallucinations?" *Id.* It was published by SFN on August 28, 2019, and was presented at the SFN conference on October 23, 2019, with Thompson's approval and without any non-disclosure agreements in place. *Id.* at 25 (citations omitted). Defendants describe

the conference as "open to the field" and claim that it was attended by about 20,000 people. *Id.* (citing, *inter alia*, ECF 304-11, Hesselgrave Deposition, at 13).

According to defendants, "such information was submitted to other conferences as well." ECF 304 at 25. They point to a letter of September 9, 2019 (ECF 304-32) from Thompson to the "awards committee" of the Winter Conference on Brain Research, in which Thompson expresses his support of Hesselgrave's application for an award. ECF 304 at 25. In the letter, Thompson stated, ECF 304-32 at 2: [redacted]

Further, defendants posit that on June 4, 2019, the University, on Thompson's behalf, "submitted numerous grant applications" to the National Institutes of Health ("NIH"). ECF 304 at 26. Compass asserts: "The NIH 'discourage[s applicants] from submitting information considered proprietary' because 'most grant-related information submitted to NIH by the applicant or recipient in the application or in the post-award phase is considered public information.'" *Id.* (quoting ECF 304-34 at 18) (alterations in ECF 304). They claim that these submissions disclosed Thompson's hypothesis, the proposed psilocybin-ketanserin combination, and specific dosing, without flagging any content as proprietary, even though the NIH invites applicants to identify the pages that the applicant believes contain trade secrets. ECF 304 at 26–27 (citing ECF 304-15, NIH grant application).

Additionally, defendants contend that Thompson "ensur[ed]" public disclosure by filing

his own patent applications. ECF 304 at 28. This includes both the provisional '090 Application, which was filed on August 13, 2019 (ECF 304-39), during Thompson's discussions with Compass, and later filings, which defendants say placed the information in the public domain. ECF 304 at 28 (citing *Stutz Motor Car of Am. v. Reebok Int'l*, 909 F. Supp. 1353, 1359 (C.D. Cal. 1995)).

Plaintiffs counter that summary judgment on the element of reasonable measures of secrecy is inappropriate. As a threshold matter, they argue that the inquiry is fact-intensive and rarely suited to resolution by summary judgment, "except in 'extreme' cases," and that defendants, as the movants, bear the burden of establishing the absence of a genuine dispute. ECF 325 at 34 (citing *Md. Physician's Edge, LLC v. Behram*, DKC-17-2756, 2019 WL 4573417 (D. Md. Sept. 20, 2019) and *Fordham v. Onesoft Corp.*, GBL-00-1078, 2001 WL 641759 (E.D. Va. Jan. 24, 2001)).

Plaintiffs posit: "'When protecting proprietary materials, the secrecy . . . need not be absolute,' and 'reasonable precautions' 'will suffice.'" ECF 325 at 35 (quoting *Glynn*, 807 F. Supp. 2d at 435). Moreover, plaintiffs emphasize: "Secrecy is not lost 'if the holder of the trade secret reveals the trade secret to another in confidence, and under an implied obligation not to use or disclose it.'" ECF 325 at 34 (quoting *Kewanee Oil Co.*, 416 U.S. at 475). Further, plaintiffs contend that defendants do not dispute that Thompson employed measures to protect the information, including requiring confidentiality "from day one," instructing his students to "not overshare," and to adhere to the University's confidentiality policies. ECF 325 at 35, 38; *see* ECF 321-3 at 24–26 (explaining UMB confidentiality policies).

As to the specific disclosures referenced by defendants, plaintiffs contend that none of them actually revealed the asserted trade secrets. Relying on the expert opinions of Dr. Barrett, plaintiffs

maintain that Thompson's communications with Drs. Vollenweider and Barrett conveyed only "high-level" or "nutshell" previews, not the sequential administration of a 5-HT2A antagonist followed by psilocybin or any timing or dosing parameters. ECF 325 at 35–36.

Similarly, with respect to the NIH grant application, plaintiffs' '090 Application, and the Hesselgrave abstract and poster, plaintiffs maintain that they did not disclose the "full scope" of the trade secrets because they did "not disclose the time-sequenced administration of ketanserin followed by psilocybin, nor [did they] disclose the specific details of that sequential administration." ECF 325 at 39 (alteration added).

Alternatively, plaintiffs contend that, even if any disclosure had revealed the secrets, the disclosures were reasonable in context. In particular, plaintiffs argue that "limited disclosures to colleagues in the context of academia," for the restricted purpose of obtaining professional input, carry an implied expectation of confidentiality grounded in academic norms. ECF 325 at 36–37 (citing *Cordis Corp. v. Boston Sci. Corp*., 561 F.3d 1319, 1334 (Fed. Cir. 2009) and *PeroxyChem LLC v. Innovative Env't Techs., Inc*., JRP-14-6446, 2015 WL 4093923 (E.D. Pa. July 7, 2015)).

Further, plaintiffs maintain that the grant and patent disclosures were not public at the relevant time. They argue that NIH grant applications are maintained as confidential unless and until the grant is funded, which did not occur here. ECF 325 at 37–38. And, they emphasize that provisional patent applications "shall not be published," 35 U.S.C. § 122(b)(2)(A), and therefore, the '090 Application did not enter the public domain upon filing. ECF 325 at 39.

In general, "[s]ecrecy is a question of fact . . . ." *Trandes Corp.*, 996 F.2d at 604 (citation omitted). There is a genuine dispute here as to whether Thompson's conduct amounts to the failure to take reasonable measures to ensure secrecy.

With respect to Thompson's communications with Drs. Vollenweider and Barrett, there is a dispute as to whether Thompson disclosed the asserted trade secrets, *i.e.*, the sequential administration encompassed in plaintiffs' asserted trade secrets. Thompson's email to Vollenweider [redacted] ECF 304-21 at 2. Yet, this statement does not disclose the trade secrets in their entirety. Likewise, Thompson's email to Dr. Barrett [redacted] ECF 304-22 at 2. But, Dr. Barrett opines that Thompson conveyed only "high-level" previews and did not disclose the sequential administration or any timing or dosing parameters. ECF 325 at 36 (citing ECF 321-25 at 72). Viewing the facts in the light most favorable to plaintiffs, a jury could credit Dr. Barrett's analysis of the emails.

Moreover, even if a jury were to determine that the above communications disclosed trade secrets, there remains a question of whether disclosures to academic colleagues, made for the purpose of seeking professional input, may carry an implied expectation of confidentiality, grounded in academic norms. *See Cordis Corp.*, 561 F.3d at 1334 (recognizing that "professional norms may support expectations of confidentiality" among academic and research colleagues). Plaintiffs do not claim that there were any formal confidentiality agreements in place. But, when Thompson was asked about these disclosures at his deposition, he stated: "They were trusted colleagues. I would trust them to maintain confidence in any information that I passed to them." ECF 321-30 at 28.

Defendants' authorities do not compel a different result. In support of their position that Thompson's assertions of an expectation of confidentiality are insufficient, defendants cite to *Allen*, 2024 WL 3597183, in which Judge Hurson dismissed the complaint of the pro se plaintiff. *Id.* at *1. According to defendants, the *Allen* Court rejected the "plaintiff's assertion that 'sharing was performed under the expectation of confidentiality and for legitimate business discussions'" and found that the plaintiff there did not adequately allege "'what measures he took to safeguard the trade secrets.'" ECF 304 at 24 (quoting *Allen*, 2024 WL 3597183, at *1) (cleaned up)).

But, contrary to defendants' representations, the *Allen* Court did not dismiss the plaintiff's claims solely on the basis that he could not "solve 'the issue of voluntary disclosure by clarifying the context and conditions under which the information was shared.'" ECF 304 at 24 (quoting *Allen*, 2024 WL 3597183, at *1) (cleaned up). Instead, the court said: "Nevertheless, he still has not sufficiently alleged what his trade secrets are, how each Defendant misappropriated them, and what measures he took to safeguard the trade secrets." *Allen*, 2024 WL 3597183, at *1. Those are meaningful differences.

Defendants also cite *Young Design,* 2001 WL 35804500. *See* ECF 304 at 24. That case concerned disclosure to a direct competitor, not a research colleague. *See id.* at 24, 27. Likewise, *Motor City Bagels, L.L.C.*, 50 F. Supp. 2d at 480, which defendants cite (ECF 304 at 23–24, 27), concerned a business plan circulated to investors with no meaningful confidentiality protection. The circumstances of disclosure in those cases differ markedly from the facts presented here.

As indicated, "selective disclosures do not" destroy a trade secret claim. *Brightview Grp., LP v. Teeters*, SAG-19-2774, 2021 WL 1238501, at *7 (D. Md. Mar. 29, 2021) (citation omitted). A jury could find that Thompson's disclosures to Drs. Barrett and Vollenweider, even if they

encompassed the trade secrets, were made with a reasonable, implied expectation of confidentiality. Therefore, if Thompson's communications to Drs. Barrett and Vollenweider disclosed the trade secrets, a genuine dispute of material fact exists about whether this would destroy the secrecy of the asserted trade secrets.

The conference abstract authored by Hesselgrave, a member of Thompson's laboratory, presents a closer question. It was published on August 28, 2019, and presented as a poster at the SFN conference without a non-disclosure agreement. ECF 304 at 24–25. I agree with defendants that a public presentation of trade secrets, untethered to any obligations of confidentiality, can defeat secrecy, and plaintiffs' reliance on academic-confidentiality norms is considerably weaker for an open poster session than for a private exchange among colleagues.

The dispositive question is not whether the abstract was public, but whether it disclosed the trade secrets that plaintiffs claim. Viewing the facts in favor of plaintiffs, the abstract and poster presentation do not, on their faces, disclose the trade secrets as plaintiffs have defined them. The abstract poses the question: "Can a combination of psilocybin plus ketanserin provide rapid relief of depressive symptoms without hallucinations?" ECF 304-26. It explains that the experiments aim to "test the hypothesis that psilocybin can exert a rapid anti-anhedonic effect in rodents subjected to [chronic multimodal stress] and ask whether this effect is independent of 5-HT2ARs." *Id*. (alteration added). Further, the abstract indicates, *id.*: "Experiments with psilocybin and ketanserin are in progress." It concludes, *id.*: "Blocking the hallucinogenic side effect of psilocybin, but not the rapid acting antidepressant effect, by co-administering psilocybin and ketanserin could provide a novel and viable approach for safe and effective rapid relief of depression."

In other words, the abstract describes only the "co-administering" of psilocybin and ketanserin; it does not disclose the [redacted] protocol or the relative dosing that plaintiffs contend define their asserted trade secrets. *See id.* Moreover, Dr. Barrett opines that the abstract and the poster did not disclose the trade secrets. ECF 321-3 at 28–29. Whether a public disclosure of the general hypothesis and concept of co-administration also disclosed the specific sequential, relatively-dosed protocol is a genuine dispute of material fact that the Court may not resolve on summary judgment.

To be sure, defendants assert that plaintiffs' amorphous definition of their trade secrets is aimed at sidestepping the disclosures made in the abstract and the poster. ECF 304 at 15. And, as previously discussed, a jury could determine that plaintiffs' definition of the trade secrets, which appears to lack any specific dosage amounts or timing intervals, is too generalized to constitute a trade secret. But, these are questions for the jury to resolve.

The NIH grant application (ECF 304-15) in 2019, and plaintiffs' '090 Application, filed on August 13, 2019 (ECF 304-39), likewise do not warrant summary judgment. On this record, neither was public when the alleged misappropriation occurred on August 29, 2019. At a minimum, there is a genuine dispute with respect to whether the University's June 2019 grant application to the NIH was ever publicly available.

The policy on which defendants rely directs that an applicant who submits information it regards as a trade secret should identify the specific pages containing the confidential information. ECF 304-34, NIH Grants Policy Statement, at 18; ECF 321-85 (same). And, defendants contend that UMB included no such designations in their grant applications. ECF 304 at 27. But, plaintiffs counter that the NIH Grants Policy Statement indicates that an unfunded NIH grant application is

not ordinarily made public, and that even when an application is awarded a grant, the NIH publishes only the project title, the name of the principal investigator, and the project description, but not the application itself. *Id.* at 2–3; *see* ECF 325 at 37–38. It is undisputed that the University's application to the NIH in June 2019 was not funded. *See* ECF 325 at 38. Therefore, a reasonable factfinder could conclude that the application's contents did not enter the public domain at that time, and thus the submission did not deprive the trade secrets of their secrecy.

Similarly, the '090 Application does not provide a basis for summary judgment because, as plaintiffs emphasize, a provisional application is not published by the PTO. *See* 35 U.S.C. § 122(b)(2)(A) ("An application shall not be published if that application is . . . a provisional application."); ECF 325 at 39. Therefore, it appears that the '090 Application did not enter the public domain upon its filing in August of 2019. A submission that never reaches the public cannot have extinguished the secrecy of that which it disclosed.

Moreover, plaintiffs offer expert testimony that neither the NIH grant application in 2019 nor the '090 Application disclosed the time-sequenced administration or the dosing relationship. *See* ECF 325 at 37–39 (citing ECF 321-3 at 30; ECF 321-26, Barrett Supplemental Report, at 13). Defendants have not moved to exclude this testimony.

With respect to the NIH grant application, Dr. Barrett opines, ECF 321-26 at 13: "Based on my review of these NIH grant applications, none of them disclose the Psilocybin Trade Secrets.



And, with regard to the '090

Application, Dr. Barrett states, ECF 321-3 at 30: [redacted] Thus, it is my opinion that the '090 Application does not disclose the Psilocybin Trade Secrets."

Plaintiffs observe that the NIH grant application and the '090 Application do not disclose the range of time intervals or dosages. ECF 325 at 23. Yet, neither does plaintiffs' definition of their trade secrets. They maintain: "The optimal dosing, timing and frequency will therefore constitute a range of values that vary relative to each other and depending on, *inter alia*, the specific form of psilocybin and 5-HT2A antagonist that is used to achieve that end result." *Id.* at 24.

Viewing the facts in the light most favorable to plaintiffs, as required, I am satisfied that there is a genuine dispute of material fact with respect to the issue of whether the NIH grant application and the '090 Application disclosed plaintiffs' trade secrets. Resolution of this dispute is for the factfinder.

Defendants are correct that publication of a trade secret in a patent application eliminates its status as a trade secret, because secrecy is a necessary element of a trade secret. *Olaplex, Inc. v. L'Oreal USA, Inc.*, 855 F. App'x 701, 707 (Fed. Cir. 2021) (explaining that "[i]nformation in published patents or patent applications is readily ascertainable by proper means"); *Attia v. Google LLC*, 983 F.3d 420, 426 (9th Cir. 2020) ("[D]isclosure of a trade secret in a patent application extinguishes the information's trade secret status."); *BondPro Corp. v. Siemens Power Generation, Inc.*, 463 F.3d 702, 706 (7th Cir. 2006) ("Publication in a patent destroys the trade secret . . . ."). But, this contention bears on whether a secret survives after the application is filed, not on whether

the information was secret when allegedly acquired and used by defendants. Although defendants may be correct that non-provisional patent filings by Thompson after defendants' alleged misappropriation eventually made the underlying information public, those publications postdate the conduct that plaintiffs challenge. The publication of Thompson's later patent filings may bear on the scope of any relief to which plaintiffs are entitled. But, it does not establish, as a matter of law, that no protectable trade secrets existed when the alleged misappropriation occurred.

The burden is on defendants, as movants, to establish that there is no genuine dispute as to any material fact. *See Bouchat,* 346 F.3d at 521. Viewing the record in the light most favorable to plaintiffs, there is a genuine dispute of material fact as to whether plaintiffs took reasonable steps to maintain the secrecy of their alleged trade secrets, including whether each challenged disclosure in fact revealed those secrets. The reasonable-measures inquiry is fact-intensive, and this is not a case in which that question may be taken from the jury. Accordingly, I shall deny summary judgment on this issue.

4. The Economic Value of Plaintiffs' Alleged Trade Secrets

Defendants challenge plaintiffs' evidence concerning economic value tied to secrecy. They contend that plaintiffs fail to establish an independent economic value derived from secrecy. ECF 301 at 31.

Information constitutes a trade secret only if it has independent economic value derived from being secret. 18 U.S.C. § 1839(3); *Synopsys II*, 70 F.4th at 769. Indeed, "the essence of a trade secret is that it derives its value from secrecy." *Stromback*, 384 F.3d 283 at 305. But, the Fourth Circuit has recognized: "Not everything with commercial value constitutes a trade secret." *Synopsys II*, 70 F.4th at 772. Therefore, a plaintiff must "come forward with evidence that its . . .

trade secrets had value *because they remain secret.*" *Id.* (emphasis in *Synopsys II*); *see DTM Research, L.L.C. v. AT&T Corp.*, 245 F.3d 327, 332 (4th Cir. 2001) ("[A trade secret's] continuing secrecy provides the value, and any general disclosure destroys the value."); *see also Oakwood Labs. LLC*, 999 F.3d at 913 ("The trade secret's economic value depreciates or is eliminated altogether upon its loss of secrecy[.]").

"Proof of value untethered to value derived from secrecy does not show an alleged trade secret's independent economic value." *Synopsys II,* 70 F.4th at 772. Of import, "[t]he reasonable secrecy requirement is linked to the independent economic value requirement because the information's value lies in the competitive advantage over others that [the plaintiff] enjoys by virtue of its exclusive access to it." *Sysco Mach. Corp.*, 143 F.4th at 228 (alteration added); *see Ruckelshaus,* 467 U.S. at 1012 ("The economic value of that property right lies in the competitive advantage over others that [the plaintiff] enjoys by virtue of its exclusive access to the data, and disclosure or use by others of the data would destroy that competitive edge.").

As noted, Compass maintains that plaintiffs do not derive any independent economic value from the secrecy of their trade secrets. ECF 304 at 31. In support of this position, defendants rely on the deposition of Dr. Dustin Tetzl, Terran's Chief Business Officer. *See id.* at 32; ECF 304-7, Tetzl Deposition. According to defendants, Tetzl "could testify only to his general belief that Dr. Thompson's research had value," but "could not comment on the purported trade secrets, let alone whether they had independent economic value derived from" not being generally known or readily ascertainable by others. ECF 304 at 32 (citing ECF 304-7).

In addition, defendants maintain that plaintiffs' "experts did not provide admissible opinions that the purported trade secrets had independent economic value." ECF 304 at 32. In

particular, defendants argue that Drs. Barrett and Woolley did not "even attempt[] to show that the purported trade secrets had 'value specifically tied to secrecy.'" *Id.* (quoting *Synopsys II*, 70 F.4th at 771). Therefore, in defendants' view, the Court should grant summary judgment because plaintiffs do not have a "cognizable trade secret." ECF 304 at 33.

Plaintiffs counter that defendants "do not and cannot dispute that Plaintiffs have submitted evidence that the trade secrets were valuable; they instead demand that such evidence expressly tie that value to the information's secrecy." ECF 325 at 40. Further, plaintiffs contend that defendants "conflate an ***element*** of Plaintiffs' claim—that the trade secrets derived independent economic value from their secrecy—with the ***evidence*** that might support that element." *Id.* (emphasis in original). According to plaintiffs, defendants' "overly demanding standard is unsupported by the case law.[]" *Id.*

Further, plaintiffs assert that courts "have found this element satisfied where a plaintiff presents evidence that the trade secrets would be valuable to a competitor." *Id.* (citing *AirFacts, Inc. v. de Amezaga*, 909 F.3d 84, 97 (4th Cir. 2018) (finding that flowcharts asserted as trade secrets satisfied "independent economic value" element because those charts "would be useful to any AirFacts competitor"); *Brightview Grp.*, 2021 WL 1238501, at *6 (granting summary judgment for plaintiff where there was no dispute that the trade secrets "could be valuable if acquired by a competitor"); *Padco Advisors, Inc. v. Omdahl*, 179 F. Supp. 2d 600, 610 (D. Md. 2002) (granting summary judgment to defendants on trade secrets misappropriation claim, but finding "independent economic value" element met where plaintiff's trade secrets "would be valuable to competitors")).

Plaintiffs point to a communication from Whelan to the Compass team in June 2019,

informing them that his research indicated that "[n]one of the experiments [proposed by Thompson] have been done before . . ." and that they were "noteworthy for both IP and scientific reasons . . . ." ECF 321-59 at 2. Moreover, on November 12, 2019, Hurley wrote to other Compass employees, stating: "Understanding the importance of the 2A receptor to the therapeutic effects of Psilocybin remains very valuable for the company." ECF 321-89 at 4. And, plaintiffs emphasize that Compass "rushed to patent the trade secrets . . . over fears Dr. Thompson would share his research at an academic conference . . . ." ECF 325 at 41.

With respect to Tetzl's deposition, plaintiffs assert that defendants' citations are "a misdirect." ECF 325 at 41. They explain that, during the deposition, defendants "repeatedly asked questions that called for legal analysis." *Id.* In contrast, argue plaintiffs, when Tetzl was asked "***factual*** questions about why Plaintiffs' trade secrets were valuable, he answered." *Id.* (emphasis in ECF 325); *see* ECF 321-16, Tetzl Deposition, at 20 ("Dr. Thompson's research and IP enable a novel therapeutic for a patient suffering with major depressive disorder . . . an area of high unmet need.").

In my view, plaintiffs have established that there is a genuine dispute of material fact with respect to the value of their trade secrets derived from secrecy. Viewing the record in the light most favorable to plaintiffs, as I must, a reasonable jury could find that the value Compass perceived in the asserted trade secrets combination was value contingent on others not possessing it. And, a jury could conclude that Compass sought to patent the trade secrets precisely because it was valuable, and that it was valuable because it was not "generally known or readily ascertainable by potential competitors." *See* 18 U.S.C. § 1839(3).

Indeed, actions sometimes speak louder than words. Notably, on August 28, 2019, when

Poulson, Compass's in-house counsel, learned that McCulloch would present his proposal publicly the following day, he instructed Compass's outside counsel to prepare a "rush" provisional patent application. The '611 Application was filed the next day. ECF 321-95 at 3; ECF 321-96 at 2; ECF 321-63 at 5. A jury could readily conclude that Compass filed the '611 Application on an urgent basis because of a strong interest in securing the exclusive right to the information that plaintiffs claim as their trade secrets. A jury could also conclude that Compass understood, at the time, that the information was not generally known or readily ascertainable. Compass's decision to file for a patent, on an emergency basis, in response to a concern about imminent public disclosure, is conduct from which a factfinder could infer that the information's worth to Compass lay in its secrecy, and Compass's desire to bar others from using it.

As mentioned, the Fourth Circuit has found this element satisfied where the asserted trade secret would be useful to a competitor. *See AirFacts*, 909 F.3d at 97. Compass was developing COMP360, a psilocybin therapy for treatment-resistant depression. ECF 304 at 13. Plaintiffs do not allege that COMP360 uses their trade secrets. *Id.* But, a factfinder could conclude that a protocol for delivering psilocybin's antidepressant benefit while suppressing its hallucinatory effects would be valuable to Compass precisely because a competitor did not have it and, were a competitor to obtain the information, it would undermine Compass's efforts in regard to the same goal of developing a treatment for depression.

Compass's contemporaneous internal assessments are also telling. Compass personnel described Thompson's proposed studies as "noteworthy for both IP and scientific reasons." ECF 321-59 at 2. Hurley himself characterized an understanding of the 2A receptor's role in psilocybin's therapeutic effect as "very valuable for the company." ECF 321-89 at 4. The

factfinder could certainly infer that the information was "very valuable" to Compass because of its secrecy.

Defendants' contention that plaintiffs' experts failed to opine on the secrecy nexus does not alter the analysis. ECF 304 at 32. Whether information derives independent economic value from its secrecy is not a subject that necessarily requires expert testimony: "such a determination is made 'on a case-by-case basis, like any other case arising under any other area of law.'" *Alifax Holding SPA v. Alcor Sci. Inc.*, WES-14-440, 2019 WL 13091790 at *7 (D.R.I. Mar. 26, 2019) (quoting *BladeRoom Grp. Ltd. v. Emerson Elec. Co.*, 331 F.Supp.3d 977, 982 (N.D. Cal. 2018)).

As discussed, defendants also challenge certain opinions of Drs. Barrett and Woolley, plaintiffs' technical experts, as to whether Thompson's discoveries constitute trade secrets and whether defendants misappropriated those trade secrets. *See* ECF 308, Defendants' Motion to Exclude Certain Opinions of Drs. Barrett and Woolley; ECF 304-2; ECF 304-9, Woolley Expert Report. But, those challenges are the subject of a *Daubert* motion that will be resolved in a separate Memorandum Opinion. The conclusion reached here does not depend on the resolution of the *Daubert* motion.

In sum, viewing the evidence in the light most favorable to plaintiffs, there is ample basis in the record on which a jury could determine that the trade secrets possessed independent economic value derived from their secrecy. Accordingly, defendants are not entitled to summary judgment on the grounds that plaintiffs' trade secrets lacked independent economic value tied to secrecy.

5. Defendants' Alleged Misappropriation

Defendants deny that they misappropriated plaintiffs' trade secrets. ECF 304 at 42. They

insist that the information contained in the '611 Application was based on the "independent work" of "a student intern," Drummond McCulloch, and not the work of Dr. Thompson. ECF 304 at 33.

To support their contention, defendants cite, *id.* at 34, the McCulloch Proposal, prepared for McCulloch's future Ph.D. work. *See* ECF 304-59. As noted earlier, it is titled "Drummond McCulloch PhD Proposal 2019[:] Investigating the efficacy of a benzodiazepine or 5HT2A antagonist in reducing anxiety associated with psilocybin administration and associated neurological changes." *Id.* (alteration added). The McCulloch Proposal describes a "2A Antagonist Bonus Project" to "[b]etter understand the role of the non-2A receptors in the subjective effects of psychedelics" and to "[d]evelop understanding of the molecular interaction between psychedelics and the 2A receptor." *Id.* at 6. Further, as part of a "Bonus Project," McCulloch proposed to "[r]epeat experiments using either ketanserin (Broadly selective 2A antagonist) or pimavanserin (2A inverse agonist)." *Id*.

As discussed, Poulsen, Compass's in-house counsel at the time, "learned that Dr. McCulloch was going to be presenting his Proposal outside of Compass." ECF 304 at 34. As a result, on August 28, 2019, Poulsen asked Compass's outside counsel at Cooley LLP to "put together a provisional patent application based on the [McCulloch] Proposal—specifically, to be filed by the following day when McCulloch would be disclosing the information in his presentation." *Id.* at 34–35 (alteration added); *see* ECF 304-58 (email between Poulsen and Sandhya Deo regarding "new RUSH provisional patent filing for [C]ompass"), at 2 ("Drummond is presenting this proposal - relating to his desire to find a lab for graduate school - TOMORROW (August 29, 2019) in Denmark"). To that end, the '110 Application was filed on August 28, 2019. ECF 321-104, ¶ 12.

Moreover, as set forth earlier, lawyers at Cooley also began to draft the '611 Application, which was filed on August 29, 2019. ECF 304 at 35; *see* ECF 321-63. The '611 Application was meant to address the "Bonus Project," as discussed in the McCulloch Proposal (ECF 321-93 at 6). *See* ECF 321-104, ¶¶ 13–17. Defendants contend that the Cooley team used "another Compass patent application, the '110 Application, as a starting point." ECF 304 at 35.

In other words, defendants identify the '110 Application as the source of information in the '611 Application. ECF 304 at 35. Indeed, defendants insist that "the sequence of administration, the timing, the dose ranges, the example experiments, and the claims ***all came from [Compass's] '110 Application***, not from Dr. Thompson." *Id.* (emphasis in original) (citations omitted). They add, *id.* at 36: "Plaintiffs' allegation that the doses and timings in the '611 Application came from Dr. Thompson is unsupportable." Moreover, defendants note that the emails between Poulsen and Cooley do not contain information from Thompson. *Id.* at 37 (citations omitted). In support of these assertions, defendants provide declarations from Poulsen (ECF 304-55) and two lawyers on the Cooley team: Sandhya Deo (ECF 304-56) and Erin Foley (ECF 304-57).

In addition, defendants highlight plaintiffs' admission that the McCulloch Proposal "was not drafted with and does not contain Dr. Thompson's alleged trade secrets." ECF 304 at 34 (citing ECF 304-2 at 73–79); *see* ECF 304 at 35 ("There is no allegation in this case that either Dr. McCulloch's Proposal or the earlier patent application contain any of plaintiffs' purported trade secrets"); ECF 351 at 27. But, that admission concerns only the McCulloch Proposal and not the '611 Application itself, and it is in the '611 Application that plaintiffs contend defendants "disclose[] the information that [plaintiffs] claim as trade secrets." ECF 325 at 42 (alterations

added). Notably, defendants do not appear to dispute that the '611 Application discloses the information in issue.

In sum, defendants posit: "There were no other inputs to the '611 Application, and no information from Dr. Thomson was used.[]" ECF 304 at 37 (citations omitted). Thus, argue defendants, "there can be no genuine dispute of fact that the '611 Application was ***independently derived*** to cover Dr. McCulloch's ideas—and therefore did not disclose a trade secret acquired through 'improper means.'" *Id.* (emphasis added) (citation omitted). In defendants' words, plaintiffs are left with "the coincidence of timing and wishful thinking." *Id.*

Plaintiffs counter that the '110 Application cannot reasonably be considered an independent source for the '611 Application, as the content in the '110 Application "cannot be separated" from the information in the '611 Application. ECF 325 at 45. They note that the two patent applications "began as one with both allegedly based on the same information—Dr. McCulloch's PhD materials," before being split into two applications prepared "at the same time, by the same people" and filed less than one day apart. *Id.*; *see also* ECF 304-55 at 3–4.

The '110 Application discloses a therapy using benzodiazepines, not 5-HT2A antagonists. *See* ECF 325 at 45 n.15. Although the '110 Application discloses a drug combination that differs from the alleged trade secrets, the source of the dosage and timing information in the '110 Application is unexplained. *See* ECF 304 at 35; ECF 304-55 at 3–4.

Further, plaintiffs argue that the '611 Application includes "details about optimal doses and timing for the sequential administration of a 5-HT2AR antagonist followed by psilocybin," which were disclosed to defendants by Thompson. ECF 325 at 43. For example, they contend that in Thompson's proposal to Compass on June 13, 2019, Thompson "included proposed doses

for the sequential administration of psilocin and ketanserin." *Id.* (citing ECF 321-52 at 3). Thompson testified at his deposition, ECF 321-54 at 10–11:



Plaintiffs identify a gap that defendants do not fill. The "details about optimal doses and timing for the sequential administration of a 5-HT2AR antagonist followed by psilocybin" (ECF 325 at 43) appear in the '611 Application but not in the McCulloch Proposal. *Id.* at 45. Yet, defendants claim that the McCulloch Proposal was used to draft both the '110 and the '611 applications. ECF 321-96.

Moreover, at McCulloch's deposition, he was asked about the origins of the specific dosages and timing in the '611 Application. ECF 321-94, McCulloch Deposition, at 70. McCulloch responded that he "ha[dn't] the foggiest." *Id.* Plaintiffs also note that "the materials to which Defendants point as the basis for the '611 and '110 applications—Dr. McCulloch's PhD proposal documents—were indisputably created ***after*** Dr. McCulloch was exposed to Dr. Thompson's confidential information, including the Psilocybin Trade Secrets." ECF 325 at 44. On this basis, plaintiffs assert that McCulloch could have used the information provided by Thompson to draft his proposal. *Id.*

In sum, the details mentioned above do not appear in the McCulloch Proposal, which was apparently used to draft Compass's '110 Application. As plaintiffs point out, "none of Compass's witnesses . . . have been able to identify, if not from Dr. Thompson, the source of the information in the '611 and '110 applications that is not contained in Dr. McCulloch's PhD proposal materials and that overlaps with the trade secrets." ECF 325 at 45–46 (citations omitted). And, defendants leave unexplained how the same parameters came to be included in the '110 Application and then the '611 Application. Nor do they address the contention in their Reply. *See* ECF 351.

Nevertheless, defendants insist that it is "unsupportable" that the doses and timings came from Thompson, because he had not completed the relevant experiments when he met with Compass in 2019. ECF 304 at 36. Plaintiffs counter that this "is a red herring", and they emphasize that "[w]hether Dr. Thompson had completed experiments using ketanserin and psilocybin at the time of these calls says nothing about whether he shared his plans and proposals regarding optimal dosage and timing with Compass prior to completing those experiments." ECF 325 at 43; *see also id.* n.13 (noting that both witness and expert testimony has explained how one could identify dosage and timing in this case without experimentation).

Plaintiffs' theory of misappropriation—that the specific dosages and timing intervals in the '611 Application, which do not appear in the McCulloch Proposal, originated from Thompson's disclosures to Compass during their discussions between May 31 and August 1, 2019—is plausible. And, defendants' Reply does not squarely engage with plaintiffs' contention that not a single Compass witness has been able to identify a source for the parameters absent from the McCulloch Proposal but present in the '110 and '611 applications. *See* ECF 351 at 27–28.

In my view, there is a genuine dispute of material fact concerning defendants' alleged

misappropriation of trade secrets. Plaintiffs' assertions of misappropriation are more than just "mere speculation." *Mona Elec. Grp., Inc. v. Truland Serv. Corp.*, 193 F. Supp. 2d 874, 877 (E.D. Va. 2002) (citing *Beale v. Hardy*, 769 F.2d 213, 214 (4th Cir. 1985)), *aff'd*, 56 F. App'x 108 (4th Cir. 2003)). In other words, plaintiffs' theory of misappropriation does not rely on "beliefs, conjecture, speculation, or conclusory allegations," untethered from any evidence. *Coleman v. United States*, 369 F. App'x 459, 461 (4th Cir. 2010).

Viewing the facts in the light most favorable to plaintiffs, a reasonable jury could conclude that the specific dosages and timing intervals in the '611 Application originated from Thompson's disclosures to Compass during their discussions between May 31 and August 1, 2019. Thus, defendants are not entitled to summary judgment on the issue of their alleged misappropriation.

B. Plaintiffs' Other Claims

As noted, in addition to claims for trade secret misappropriation (Counts I and II), plaintiffs assert claims for unfair competition (Count III); detrimental reliance/ promissory estoppel (Count IV); unjust enrichment (Count V); quantum meruit/implied-in-fact contract (Count VI); fraudulent misrepresentation (Count VII); negligent misrepresentation (Count VIII); fraudulent concealment (Count IX); constructive fraud (Count X); and breach of contract (Count XI). ECF 199. In the Motion, defendants generically argue that "all of plaintiffs' claims fail if the purported trade secrets are not protectable and/or were not misappropriated." ECF 304 at 38.

According to defendants, "each of those causes of action rests on the alleged existence and/or misappropriation of the purported 'Psilocybin Trade Secrets'" (ECF 304 at 38), and "relies on the same set of alleged 'facts' as the trade secret claims—'facts' that Plaintiffs cannot support." ECF 351 at 28. Therefore, in defendants' view, the entirety of plaintiffs' suit "should fall alongside

their allegations of trade secret misappropriation." ECF 304 at 38–39.

Defendants present a skeletal argument, about a half page in length, as to these remaining claims. ECF 304 at 38. They do not identify or analyze the elements of the various claims or even attempt to show why plaintiffs' evidence is insufficient. On the basis of what has been presented, the Court cannot determine at this time whether any claims are fatally flawed. *See Sysco Mach. Corp.*, 143 F.4th at 231 ("Although Sysco nominally appeals the dismissal of all its claims, it has not developed its argument sufficiently with respect to these three claims to allow us to pass on them.").

Moreover, it is not obvious that any shortcomings regarding plaintiffs' trade secrets misappropriation claims necessarily defeat plaintiffs' other causes of action. As plaintiffs aptly put it, "those claims are decided under different legal standards, implicate different legal duties, and entitle Plaintiffs to different kinds of relief." ECF 325 at 52.

In short, defendants "do not even try to explain why victory on any particular element of Plaintiffs' trade secret claims would negate Plaintiffs' ability to carry their burden of proof on any other element of any other claim." *Id.* As the movants, defendants have not met their initial burden of demonstrating that there is no genuine dispute of material fact with respect to plaintiffs' claims that are not trade secrets misappropriation. *See Bouchat*, 346 F.3d at 521. Therefore, I shall deny summary judgment as to Counts III through XI.

C. Damages

Defendants assert that plaintiffs cannot prove damages for any of their eleven counts. ECF 304 at 39; *see* ECF 351 at 31. At the outset, I note that defendants' arguments are directed almost entirely at plaintiffs' claims for trade secrets misappropriation. They invoke the DTSA and rely

on cases analyzing misappropriation claims. *See* ECF 304 at 39–42. They make no effort to explain how those arguments bear on plaintiffs' other causes of action.

Defendants' challenges primarily implicate the Lost Investment and Reasonable Royalty theories of damages advanced by Dr. Macartney, plaintiffs' damages expert. Under Dr. Macartney's Lost Investment theory, Terran targeted $100 million in Series B fundraising in 2022, but fell $71 million short of that goal. ECF 304-94, Macartney Report, at 87–88. According to Dr. Macartney, prior to the discovery of defendants' alleged misappropriation, Terran was "a financially strong company with access to additional capital based on the Psilocybin Trade Secrets." *Id.* at 11. In his view, Terran had "demonstrated its ability to secure capital" through a $13.8 million Series A round, which "laid the groundwork" for the Series B round, in which Terran raised $27.1 million before the misappropriation. *Id.* However, after the discovery of the alleged misappropriation by Compass, Terran only raised an additional $1.6 million in the Series B round. *Id.* Accordingly, Terran raised approximately $71 million less than its Series B fundraising goal. *Id.* at 87.

Dr. Macartney concludes that "this shortfall is directly attributable to the theft of the Psilocybin Trade Secrets." *Id.* at 11. He asserts: "That this shortfall can be causally attributed to the theft of the Psilocybin Trade Secrets is supported by the facts surrounding the Series B funding round, as relayed to me by Dr. Sam Clark and Dustin Tetzl." *Id.* at 88. In his view, the entire amount of $71 million constitutes damages attributable to Compass. *Id.*; ECF 304-96, Macartney Deposition, at 58–59.

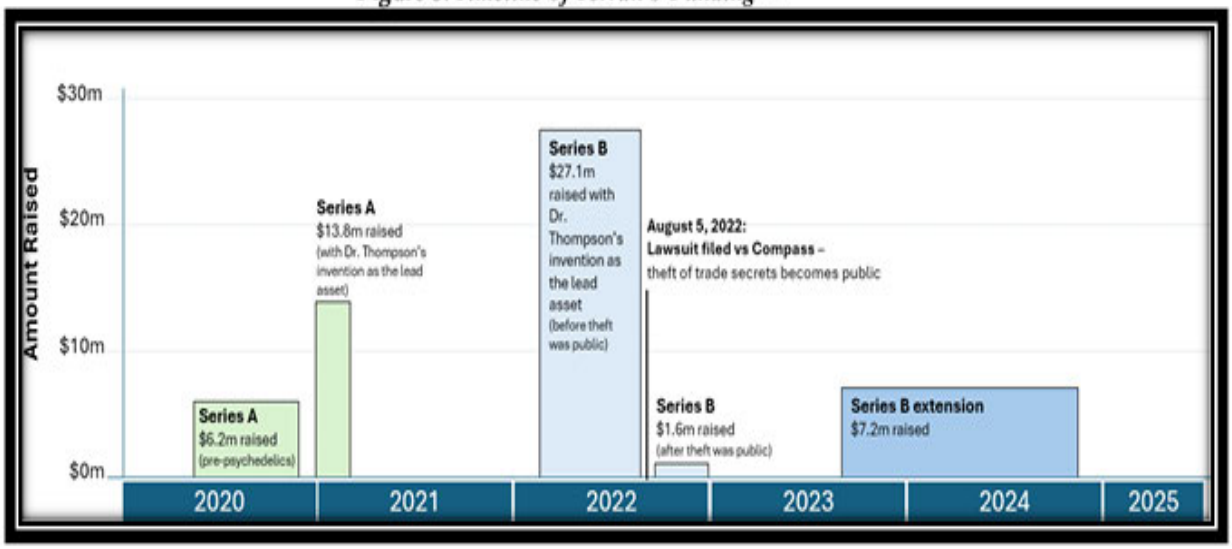
Under Dr. Macartney's Reasonable Royalty theory, Terran's damages are measured by "the amount of the lump-sum reasonable royalty that would have been paid had the parties

negotiated and secured an exclusive and unlimited right to the Psilocybin Trade Secrets for Compass." ECF 304-94 at 13. In Dr. Macartney's view, a Reasonable Royalty theory is appropriate here because Compass, in misappropriating the trade secrets, using them "for whatever purposes Compass decided to use them for," and disclosing them in patent applications "that prevented competitors from securing patent protection on those same ideas," had "effectively granted itself a free exclusive, unlimited license" to the trade secrets. *Id.* He posits that the measure of the royalty is what Compass "would have negotiated and paid for that same scope of use." *Id.* Under this theory, Dr. Macartney determines that Terran suffered Reasonable Royalty damages of $117,876,681. *Id*.

Defendants claim that Dr. Macartney fails to "tie Terran's funding failures to either the '611 filing or its publication." ECF 304 at 39. They contend that the DTSA "is clear: the owner of a trade secret is entitled to 'damages for actual ***loss caused by the misappropriation*** of the trade secret.'" ECF 304 at 39 (quoting 18 U.S.C. § 1836(b)(3)(B)(i)(I)) (emphasis added by defendants). But, defendants state: "Plaintiffs assert that the filing and publication of the '611 Application was Compass's act of misappropriation." ECF 304 at 39. And, "Compass filed its '611 Application on August 29, 2019, and it later published on October 22, 2020." *Id.* Yet, defendants emphasize that plaintiffs raised $13.8 million in Series A funding and $27.1 million toward Series B funding *after* publication of the '611 Application. *Id*.

In defendants' view, a graph in the report of Dr. Macartney demonstrates that the Series B fundraising decline that plaintiffs attribute to defendants' misappropriation did not begin until August 2022. *Id.* at 40 (citing ECF 304-94 at 87). The graph appears in Dr. Macartney's report as follows, ECF 304-94 at 87:

Figure 3. Timeline of Terran's Funding[431]



However, according to defendants, Terran's purported decline in funding coincides not with anything Compass did, but with Terran's own decision to file suit on August 5, 2022. ECF 304 at 40. Defendants characterize the filing of the suit as an "intervening" and "superseding" cause of any resulting harm. *Id.* (citing *360 Mortg. Grp., LLC v. Home Point Fin. Corp.*, 740 F. App'x 263, 267, 269 (4th Cir. 2018); *RLM Commc'ns, Inc. v. Tuschen*, 66 F. Supp. 3d 681, 698–99 (E.D.N.C. 2014), *aff'd*, 831 F.3d 190 (4th Cir. 2016)). They assert: "Because Plaintiffs admit that Defendants' conduct was not the cause of their alleged harm, Plaintiffs' lost investment, lost profits, and unjust enrichment claims should be dismissed." ECF 304 at 40.

Compass's argument is directed at several of plaintiffs' theories of damages—Lost Investment, Lost Profits, and Unjust Enrichment. *Id.* But, Compass does not explain which of the claims asserted in the FAC would be resolved, in whole or in part, if the Court were to agree that those theories fail for want of causation. *Id.*

Further, defendants contend that, even if causation could otherwise be established for

plaintiffs' claims, evidence of it is inadmissible. *Id.* at 41. In particular, defendants dispute Dr. Macartney's attribution of Terran's Series B fundraising shortfall to statements that third-party investors made to Terran executives Drs. Clark and Tetzl, who in turn relayed those statements to Dr. Macartney. ECF 304-94 at 88. Defendants characterize this as "textbook double hearsay." ECF 304 at 41. They cite *Tubular Rollers, LLC v. Maximus Oilfield Prods., LLC*, ASH-19-3113, 2021 WL 5991744, at *1–2 (S.D. Tex. Dec. 16, 2021), for the proposition that "an expert [cannot] reasonably rely on double hearsay related to him/her by an employee of a party with a vested interest in the outcome of the case." ECF 304 at 41 (alteration added).

Moreover, defendants challenge plaintiffs' Reasonable Royalty theory, by which plaintiffs seek a 2.75% royalty, totaling about $118 million, on projected future sales of a product that neither party currently sells. *Id.* at 41–42. Defendants argue that because there is no allegation that Compass used any trade secrets in an actual product, there is nothing to which a royalty could attach, and that such "damages are meant to be a measure of the ***harm 'caused by alleged misappropriation,'*** not an untethered windfall." *Id.* at 42 (quoting 18 U.S.C. § 1836(b)(3)(B)(ii)) (emphasis added by defendants).

Plaintiffs counter that, "[a]s a threshold matter, Defendants do not address Plaintiffs' requests for equitable relief." ECF 325 at 47 (citing ECF 199 at 42–43). They posit: "Even if the Court grants summary judgment as to Plaintiffs' damages claims, there is no dispute that Plaintiffs can continue to pursue those equitable remedies, should any aspect of their claims proceed." ECF 325 at 47.

With respect to causation and their Series B fundraising, plaintiffs argue that they have never conceded that defendants' conduct did not cause harm, and they directly tie the fundraising

shortfall to the August 2022 revelation of Compass's misconduct, not to the mere act of filing suit. ECF 325 at 48–49. Plaintiffs point out that defendants identify no evidence that the filing of the lawsuit, as opposed to the underlying misconduct that the lawsuit revealed, caused investors to walk away, and argue that "at this stage 'any competing, rational inferences' are to be interpreted 'in the light most favorable'" to plaintiffs as the nonmoving party. *Id.* at 49 (quoting *Rossignol v. Voorhar*, 316 F.3d 516, 523 (4th Cir. 2003)).

Regarding defendants' double hearsay objection, plaintiffs assert that, at the depositions of Drs. Clark and Tetzl, they "explained, once Compass's theft became public, the tenor of Terran's discussions with investors changed, as investors lost confidence in Terran's ability to protect its intellectual property." ECF 325 at 50 (citing, *inter alia*, ECF 321-15, Clark Deposition; ECF 321-16). Plaintiffs maintain that Drs. Clark and Tetzl are themselves fact witnesses who will testify at trial about their personal involvement in Terran's fundraising and their own understanding of why investors declined to invest. ECF 325 at 48. Moreover, they note that Dr. Macartney, as an expert, may rely on information that would not itself be independently admissible. *Id.* at 50.

In addition, plaintiffs assert that their Lost Investment theory is supported by other "admissible evidence—including evidence which Defendants' motion does not challenge, such as Terran's Series A and Series B fundraising activities, investor meeting data, and fundraising records." ECF 325 at 50. They also argue that the investor statements are not hearsay because they are offered not for their truth but, instead, as evidence of what the investors believed at the time. *Id.* at 51. Alternatively, plaintiffs argue that the statements fall within the exception in Federal Rule of Evidence 803(3), which permits statements describing a declarant's then-existing state of mind. *Id.*

With respect to Dr. Macartney's Reasonable Royalty theory, plaintiffs contend that "there is no requirement that a defendant 'use a trade secret in a product' for a Reasonable Royalty to be appropriate." ECF 325 at 51. Rather, plaintiffs maintain: "Reasonable royalty damages can be assessed 'in lieu of damages measured by any other methods' to compensate for 'unauthorized ***disclosure*** or use of the trade secret.'" *Id.* (quoting 18 U.S.C. § 1836(b)(3)(B)(ii), emphasis added by plaintiffs). Moreover, plaintiffs assert: "Here, Defendants both 'used' Plaintiffs' trade secrets and 'disclosed' them." ECF 325 at 51.

Defendants' argument that the lawsuit is a superseding cause of any alleged harm for which plaintiffs now seek to recover is not well taken. As a threshold matter, whether Terran's decision to file suit, rather than Compass's underlying conduct, was the operative cause of the Series B shortfall is not an issue that would be appropriate to resolve on summary judgment. Causation is ordinarily a question of fact, and the competing accounts of why Terran's fundraising faltered turn on inferences drawn from a contested record. This is precisely the sort of dispute reserved for the trier of fact. Further, defendants identify no authority holding that a plaintiff's decision to vindicate its rights in court may itself sever the causal chain between a defendant's wrongdoing and the plaintiff's injury. Such a rule would place a trade secret owner in the untenable position of abandoning its claim or pursuing it and thereby extinguishing the damages it seeks to recover.

As noted, defendants have moved to exclude all four damages theories of Dr. Macartney in a separate motion. *See* ECF 302. The arguments brought by defendants there resemble those made here by Compass. I shall address defendants arguments in my forthcoming Memorandum Opinion resolving defendants' motion to exclude the opinions of Dr. Macartney.

However, even if I were to conclude that some or all of Dr. Macartney's damages theories

were defective and therefore must be excluded, that would not result in summary judgment for defendants with respect to the issue of damages. Defendants' bald, conclusory assertion that "Plaintiffs cannot prove damages for any of their Counts I–XI" (ECF 304 at 42) is insufficient. Defendants' arguments pertain only to plaintiffs' trade secrets misappropriation claims, and they fail to explain how their arguments for summary judgment on damages would even remotely apply to plaintiffs' other counts. Such an approach in a case as complicated as this one does not suffice. I decline to do the heavy lifting for defendants.

Accordingly, defendants are not entitled to summary judgment with respect to plaintiffs' damages theories.

IV. Conclusion

For the foregoing reasons, I shall deny the Motion. An Order follows, consistent with this Memorandum Opinion.

Date: September 25, 2026

/s/
Ellen Lipton Hollander
United States District Judge