No. 22-3765

IN THE UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

KEVIN D. HARDWICK,

Plaintiff-Appellee,

v.

3M COMPANY; E. I. DU PONT DE NEMOURS AND COMPANY; THE CHEMOURS COMPANY; ARCHROMA MANAGEMENT LLC; ARKEMA, INC.; ARKEMA FRANCE, S.A.; AGC CHEMICALS AMERICAS, INC.; DAIKIN INDUSTRIES LTD.; DAIKIN AMERICA, INC.; SOLVAY SPECIALTY POLYMERS, USA, LLC,

Defendants-Appellants.

Appeal from U.S. District Court for the Southern District of Ohio
The Honorable Edmund A. Sargus, No. 2:18-cv-1185

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and Sixth Circuit Rule 26.1, counsel states as follows:

1. 3M Company is a publicly held company. It has no parent corporation. And no publicly held corporation owns 10% or more of its stock. 3M Company is unaware of any publicly held company or affiliate of a publicly held company, not a party to this case, that has a substantial financial interest in the outcome of the case.

2. AGC Chemicals Americas, Inc. is a non-governmental corporate party and is a subsidiary of AGC America, Inc. AGC America, Inc. is a subsidiary of AGC Inc., a publicly traded corporation. AGC Chemicals Americas, Inc. is unaware of any other publicly held company or affiliate of a publicly held company that has a substantial financial interest in the outcome of the case.

3. Archroma Management LLC is not a publicly owned corporation. The sole shareholder of Archroma Management LLC is Archroma Operations S.á.r.l. There is no publicly held corporation owning 10% or more of its stock. Archroma Management LLC is unaware of a publicly owned corporation, not a party to this appeal, that has a substantial financial interest in the outcome of the case.

4. Arkema France is a wholly-owned subsidiary of Arkema, S.A., a publicly traded French company.

5. Arkema Inc. is a wholly-owned subsidiary of Arkema Delaware, Inc. There are no publicly held companies that own 10% or more of the stock of Arkema Inc. Arkema Inc. is indirectly owned by Arkema, S.A., a French public company.

6. The Chemours Company is a publicly held company. More than 10% of Chemours' stock is held by BlackRock Fund Advisors, which upon information and belief is a wholly-owned subsidiary of BlackRock Inc., a publicly held corporation.

7. Daikin America, Inc. is a nongovernmental corporate party incorporated in Delaware and is an indirect subsidiary of Daikin Industries, Ltd., a public company headquartered in Osaka, Japan and listed on the Tokyo Stock Exchange.

8. Daikin Industries, Ltd. is a nongovernmental corporate party headquartered in Osaka, Japan and listed on the Tokyo Stock Exchange.

9. E. I. du Pont de Nemours and Company ("EID") is a nongovernmental corporate party. EID is a subsidiary of Corteva, Inc. Corteva, Inc. is a publicly traded company owning 10% or more of EID's stock. EID is unaware of any publicly owned corporation other than Corteva, Inc., and any other publicly owned parent corporation identified by the parties to this appeal that has a financial stake in the appeal.

10. Solvay Specialty Polymers USA, LLC is a nongovernmental corporate party and is a wholly-owned subsidiary of Ausimont Industries, Inc. Solvay Specialty Polymers USA, LLC is indirectly owned by Solvay S.A., a company that

is publicly traded in Europe. Solvac S.A. owns approximately 30% of Solvay S.A. and is also publicly traded in Europe. Solvay Specialty Polymers USA, LLC is not aware of any other parent corporation or publicly held corporation that owns 10% or more of its membership interests. Solvay Specialty Polymers USA, LLC is unaware of any publicly owned corporation—other than Solvac S.A., Solvay S.A., and any other parent corporation identified by the parties to this appeal—that has a financial stake in the appeal.

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STATEMENT IN SUPPORT OF ORAL ARGUMENT

This Court granted interlocutory review in this case under Rule 23(f). *In re 3M Co.*, No. 22-0305, 2022 WL 4149090 (6th Cir. Sept. 9, 2022) (Guy, Donald, Bush, JJ.). The district court's certification of a class of almost 12 million people—nearly all individuals in Ohio and then some—presents "'novel' and 'unsettled' issue[s]" "with important implications." *Id.* at *8. To fully explore those issues in this significant case, Defendants respectfully request oral argument.

INTRODUCTION

This Court has before it "one of the largest class actions in history, predicated on a questionable theory of standing and a refusal to apply a cohesion requirement endorsed by seven courts of appeals," pursuing "an ill-defined remedy that sits uneasily with traditional constraints on the equity power and threatens massive liability." *In re 3M Co.*, No. 22-0305, 2022 WL 4149090, at *10 (6th Cir. Sept. 9, 2022). The district court's class-certification decision expands federal court jurisdiction and Rule 23 far beyond their breaking points, in several ways:

- The class is "extraordinary" and includes "nearly all 11.8 million residents of Ohio, along with anyone else otherwise subject to its laws." *Id.* at *1-2.
- The single named Plaintiff, Kevin Hardwick, does not allege any present or imminent injury, let alone one connected to any Defendant. Rather, Hardwick admits that he does not know whether he is injured or whether any Defendant would be responsible for any injury he might have.
- Hardwick seeks unprecedented equitable relief. *See id.* at *10. He wants an "injunction" ordering Defendants to pay for a "Science Panel" that would conduct unspecified studies on the approximately 5,000 different substances falling under the umbrella term "per- and

polyfluoroalkyl substances," better known as "PFAS." The Science Panel would ultimately issue unspecified findings on whether class members might be at risk of injury from any of those substances, which supposedly would be binding on the ten Defendants and nearly all Ohioans (and all others "subject to Ohio law").

- The thousands of different PFAS at issue in this class action, found in everything from building materials to medical devices, each have unique physical properties and highly disparate uses.
- The millions of class members have fundamentally different claims because they were exposed to different PFAS in different amounts, at different times, from different sources, creating different potential risks, if any, based on their different demographic and health backgrounds.
- The alleged conduct of the ten Defendant companies (selected from the many thousands of companies that have made or sold PFAS over the years) is just as varied. At different times and in different places, each Defendant allegedly took one or more different and separate actions relating to different PFAS: They allegedly "marketed, developed, manufactured, distributed, sold, released, trained users on, produced instructional materials, and/or otherwise handled and/or used PFAS materials." Compl., R.96, PageID#567.

Unsurprisingly, settled legal principles preclude the unprecedented Science Panel class action certified by the district court. For one thing, Article III does not grant standing to a plaintiff who sues to "determine *whether* he [is injured]," cannot trace any injury to a particular Defendant, and pursues relief that would not redress any real injury. *3M*, 2022 WL 4149090, at *6. For another, Rule 23 does not permit a no-opt-out class action on behalf of millions of diverse individuals who lack any cohesion, seek no viable injunctive remedy, and would be impossible to identify.

As the motions panel forcefully suggested in a nineteen-page opinion explaining its decision to grant Rule 23(f) review, the district court's orders on these subjects violate established Article III and Rule 23 principles. *Id.* at *3 (Guy, Donald, Bush, JJ.). The unprecedented class authorized by the district court goes well beyond anything a federal court could ever permit. It would trample basic tenets of federal standing, injunction, and class-action law to establish a proceeding that would effectively operate as a quasi-regulatory program of research and potential monitoring far outside the bounds of a Case or Controversy seeking traditional relief for concrete injuries on behalf of a cohesive class. If allowed to stand, the district court's ruling could open the floodgates to any number of copycat suits on behalf of enormous putative classes seeking "injunctions" (really, funding) to study any product or substance alleged to be a possible cause of any potential injury, however abstract or generalized.

This Court should accordingly reverse the district court's certification of Hardwick's novel and sprawling class and order dismissal for lack of jurisdiction.

STATEMENT OF JURISDICTION

Plaintiff claimed federal subject-matter jurisdiction under 28 U.S.C. §§ 1332, 2201-02. Compl., R.96, PageID#562. But the district court lacked subject-matter jurisdiction for the reasons explained in Section I below.

The district court certified a class on March 7, 2022. *See* Order, R.233, PageID#6663-6711. "Defendants timely petitioned this court for permission to appeal the certification decision under Civil Rule 23(f)." *3M*, 2022 WL 4149090, at *2. The Court granted that petition. *Id.* at *10.

This Court has "jurisdiction under Civil Rule 23(f) and 28 U.S.C. § 1292(e)" to review both jurisdiction and the propriety of class certification. *Id.* at *3.

STATEMENT OF ISSUES

1. Whether a plaintiff has Article III standing to obtain prospective injunctive relief relating to exposure to substances when he (a) has no evidence that he is at any risk of future injury from the exposure; (b) admits he has "no idea" who is responsible for his exposure; and (c) requests as relief a court-appointed panel of experts to study whether exposure at any level might lead to any future injury.

2. Whether a class satisfies Rule 23(b)(2) when it lacks cohesion comparable to the common-issue predominance required by Rule 23(b)(3) (and even the commonality required by Rule 23(a)(2)); when the plaintiff does not seek injunctive relief that a federal court could actually award; and when the plaintiff provides no specifics about the proposed injunction.

3. Whether a district court may certify a class using a class definition that makes it functionally impossible to identify class members.

STATEMENT OF THE CASE

Plaintiff sued "hoping to certify a nationwide class of every individual in the United States with PFAS in his or her blood—a class of nearly the entire nation." *3M*, 2022 WL 4149090, at *1. The district court ultimately certified a class of "every individual 'subject to the laws of Ohio' whose blood contains 0.05 parts per trillion of PFAS—an amount undetectable with current technology." *Id.* On behalf of the more than 11 million class members, Plaintiff wants a remedy never before "accorded by courts of equity": an "order[] [for] defendants to fund a 'science panel' to study the effects of PFAS—whether and to what extent [they] may increase the risk of disease—and [depending on the findings] potentially to provide medical monitoring for every member of the class." *Id.* at *1, *5 n.3.

A. The Term "PFAS" Encompasses Thousands Of Substances That Have Been And Remain Essential In Countless Products And Uses.

The term "PFAS comprises a huge family of chemicals"—"about 5,000 different compounds that contain bonds between carbon and fluorine atoms." *Id.* at *1, *6; *see* Reitman Rep., R.200-4, PageID#5314-18. These thousands of substances vary dramatically as a scientific matter because they each have different chemical compositions, which give them different properties. Reitman Rep., R.200-4, PageID#5314-18. For instance, different PFAS have radically different elimination rates (how quickly natural processes remove them from blood)—with half-lives ranging from less than an hour for some, to years for others. Beck Rep.,

R.200-2, PageID#5184-87. They also have different distributions (where they move within the body). *Id.*, PageID#5181-83. These differences, among many others, are why the experts in this case uniformly explained that, from a scientific standpoint, grouping and studying all 5,000 or so PFAS together makes no sense. *See, e.g.*, Alexander Rep., R.200-1, PageID#4999-5000; Beck Rep., R.200-2, PageID#5180-88; Reitman Rep., R.200-4, PageID#5314-18.

The uses and sources of PFAS also vary dramatically. They have been used in many different ways for over 70 years, including in a wide variety of products. *3M*, 2022 WL 4149090, at *1.[1] "[T]housands of companies make or once made thousands of products using PFAS—including medical devices, pharmaceuticals, food packaging, building materials, automotive parts, water-repellent clothing, and a profusion of other goods." *Id.* The ten Defendants thus do not account for anywhere close to all the PFAS or PFAS-containing products made or sold in the United States, or in Ohio. Reitman Rep., R.200-4, PageID#5322-23. Moreover, different Defendants made, sold, or used different products at different times and in

[1] *See, e.g.*, Beck Rep., R.200-2, PageID#5163-66; Reitman Rep., R.200-4, PageID#5319-21; *see also* NIH, Per- and Polyfluoroalkyl Substances (PFAS), https://ntp.niehs.nih.gov/whatwestudy/topics/pfas/index.html (discussing the ability of certain PFAS to reduce friction, making them useful in a variety of industries such as aerospace, construction, electronics, and automotive).

different places. *Id.* And there are many kinds of PFAS that none of the Defendants in this litigation makes or sells. *Id.*

Understandably, then, exposure to PFAS might occur through a "litany of possible pathways." *3M*, 2022 WL 4149090, at *6. One person outside of Cleveland might claim to have come in contact with one type of one Defendant's PFAS through, for example, ski wax made and sold by a third party. Another person in southern Ohio might claim to have used personal-care products with a different kind of PFAS that no Defendant manufactures (and is instead made in China). A person residing elsewhere in the State might have ingested drinking water containing yet another type of PFAS discharged from a nearby facility making coated fabrics. Or a firefighter might have worked with aqueous film forming foam ("AFFF")—a kind of PFAS-containing foam used to extinguish certain hard-to-control fires—as Plaintiff did here. And those are but a few examples of thousands of possibilities, as Defendants' experts illustrated in an unrebutted account of potential exposure pathways. *See, e.g.*, Beck Rep., R. 200-2, PageID#5161-62.

Given the prevalence and number of different PFAS, it is not surprising that Plaintiff alleges that 99% of Americans, some 330 million people, have some amount of some kind of PFAS in their blood. Class-Cert. Mot., R.164, PageID#1530.

B. Plaintiff Groups All PFAS Together And Sues Because Of Fear Of Their Unknown Effects.

Plaintiff Kevin Hardwick has trace amounts of five kinds of PFAS in his blood. *See* Opposition, R.200, PageID#4769-77. But he has "no idea" which Defendant (if any) exposed him to these five PFAS. Hardwick Dep., R.200-6, PageID#5418-19. Hardwick does, however, allege that he came into contact with PFAS while using fire-fighting foams and fire-fighting gear supposedly containing certain PFAS. Compl., R.96, PageID#562.

Hardwick served as a firefighter for over 40 years, including for many years at the Cincinnati/Northern Kentucky International Airport. There he would train weekly with PFAS-containing foam, sometimes getting "covered" in it. Hardwick Dep., R.200-6, PageID#5440-41. And Hardwick would wear firefighter gear, which he alleges is made with PFAS. *Id.*, PageID#5445-46. Hardwick would also demonstrate and sell PFAS-containing products, including firefighting foam, to others—both in his role as a fire chief and in his parallel career as a salesman of fire-fighting products. *Id.*, PageID#5424-25.

Hardwick does not know what, if anything, the trace amounts of the five PFAS in his blood have allegedly done to him. He has no disease or condition attributed to his PFAS exposures. *Id.*, PageID#5439-40. He offered no allegations or evidence that any doctor or expert has recommended monitoring or found him to be at an increased risk of disease due to his PFAS exposures. He is suing simply because he

"fears the *unknown effects* of [PFAS]." MTD Opp., R.94, PageID#523 (emphasis added). Indeed, he has testified that he does not "know what [the PFAS in him] can potentially do," so he wants to "learn [his] personal risk" of injury (if any) by "gather[ing] the information required to see what the risk is," if there is any risk at all. Hardwick Dep., R.200-6, PageID#5433-35.

As this Court observed, Hardwick thus "actually has no idea about his risk of future disease," which is not surprising given that the "health effects of PFAS are uncertain." *3M*, 2022 WL 4149090, at *1, *6. Unrebutted expert evidence also shows that the toxicity (if any) of any given PFAS depends on myriad factors, including the kind of PFAS; the level of PFAS; the path of exposure; the length of exposure; and personal characteristics (*e.g.*, age, gender, body mass, occupation, diet, race, and behavior). *See* Beck Rep., R.200-2, PageID#5173, 5180-87; Herzstein Rep., R.200-3, PageID#5258-60.

Yet, Hardwick has grouped all PFAS, and millions of individuals, together in this lawsuit. "The crux of the suit here is about discerning the harm or risk of harm from exposure to" various amounts of various PFAS. *3M*, 2022 WL 4149090, at *2 n.1. That includes not just the five substances in *Hardwick's blood*, but also *any* of the 5,000 PFAS at practically any level in *any* of the 11-million-plus class members.

C. Hardwick Seeks An Independent Science Panel To Study PFAS And Make Findings Binding On Nearly All Americans.

The device by which Hardwick proposed to learn more about PFAS is a non-opt-out federal class action that would include 99% of all Americans. His chosen Defendants are ten of the countless companies that have something to do with PFAS. *See* Compl., R.96, PageID#567 (listing the Defendants' alleged conduct as everything from selling PFAS to simply at some point handling them). Hardwick asserts negligence and battery claims under Ohio law. *Id.*, PageID#584-87.

Hardwick's requested relief is unprecedented. He asked for an "injunction" creating "an independent panel of scientists," called the "Science Panel," which would be "tasked with independently studying, evaluating, reviewing, identifying, publishing, and notifying/informing the Class of *Sufficient Results*." *Id.*, PageID#590-91 (emphasis added). The complaint defines "Sufficient Results" as the Science Panel's eventual findings on whether any kind of PFAS actually causes "any injury" or risk of injury "sufficient to warrant any personal injury compensation or future diagnostic medical testing" (*i.e.*, medical monitoring). *Id.*, PageID#577, 579. Hardwick asked that Defendants be ordered to fund this Science Panel, at enormous expense, and that the Panel's findings "be deemed definitive and binding on all the parties." *Id.*, PageID#591; *see 3M*, 2022 WL 4149090, at *5 n.3.

Hardwick purported to model this requested relief on the so-called "C-8 Science Panel." But that Panel was not the product of an injunction awarded over

defense objections; it was contractually negotiated by one company as part of a settlement of a West Virginia state-court opt-out class-action almost 20 years ago. That settlement-based panel examined the potential health effects of one type of PFAS (PFOA, sometimes called "C-8") on a class of 67,000 individuals, all of whom lived near a facility that manufactured PFOA-containing products and potentially had exposures to that substance.[2] Using a negotiated "probable link" standard with a lower threshold than legal or scientific causation, the settlement-based panel found some "probable links" between six health conditions and PFOA exposure, but found no links to many other conditions.[3] Thus, unlike the Science Panel requested here, that "C-8 Panel" arose purely from a settlement, and it related to a single PFAS in a single community allegedly attributable to a single company that entered into the settlement.

Many other efforts to study and address PFAS are already underway. Numerous private researchers and government agencies, as well as Congress, are investigating potential links between various PFAS and various health endpoints in

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[2] Alexander Rep., R.200-1, PageID#4992-93, 5024-25; C8 Science Panel, Home, http://www.c8sciencepanel.org/; C8 Science Panel, Home, http://www.c8sciencepanel.org/panel_background.html.

[3] Alexander Rep., R.200-1, PageID#4992-93; C8 Science Panel, Home, http://www.c8sciencepanel.org/.

different populations and localities.[4] And various federal and state regulators are pursuing action plans to address certain kinds of PFAS.[5]

D. The District Court Permits Hardwick's Lawsuit To Go Forward.

Defendants moved to dismiss this lawsuit on numerous grounds, but the district court rejected them all. *See generally Hardwick v. 3M Co.*, 2019 WL 4757134 (S.D. Ohio Sept. 30, 2019); Order, R.128, PageID#835-69.

Most relevant here, in a decision that this Court has called "questionable," the district court rejected Defendants' argument that Hardwick lacked Article III standing. *3M*, 2022 WL 4149090, at *10. The district court incorrectly construed one of this Court's decisions as binding on standing when, in fact, the decision "never resolved (or even discussed)" the question of Article III injury. *Id.* at *4 (citing *Hirsch v. CSX Transp., Inc.*, 656 F.3d 359 (6th Cir. 2011)). And the district court mistakenly thought that the effort to plead a battery claim under Ohio law necessarily established injury in fact under Article III, and mistakenly conflated the

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[4] Alexander Rep., R.200-1, PageID#5000-01; Congressional Research Service, PFAS and Drinking Water: Selected EPA and Congressional Actions, https://sgp.fas.org/crs/misc/R45793.pdf

[5] *See* EPA, EPA PFAS Action Plan: Program Update (Feb. 2020), https://www.epa.gov/sites/production/files/2020-01/documents/pfas_action_plan_feb2020.pdf; Ohio EPA & Ohio Dep't of Health, Ohio Per- and Polyfluoroalkyl Substances (PFAS) Action Plan for Drinking Water (Dec. 2019), https://epa.ohio.gov/Portals/28/documents/pfas/PFASActionPlan.pdf

injury needed for *retrospective* relief with the injury needed for *prospective* relief. *Id.* at *5-6 (citing *City of Los Angeles v. Lyons*, 461 U.S. 95, 105 (1983)).

E. Plaintiff Seeks A 330 Million-Person Class Of Essentially Everyone With Every Kind Of PFAS At Impossible-To-Detect Levels.

After the pleading stage, Hardwick moved for class certification, proposing an ambitious class:

> [A]ny individual residing within the United States at the time of class certification for one year or more since 1977 with 0.05 parts per trillion (ppt) or more of PFOA and at least 0.05 ppt or more of any other PFAS in their blood serum.

Class-Cert. Motion, R.164, PageID#1481, 1546. The proposed class would include over 330 million individuals, nearly the entire American population. *See id.*, PageID#1530 n.10. Hardwick asked the district court to certify the class on a no-opt-out basis under Rule 23(b)(2). *Id.*, PageID#1481. Notably, Hardwick did not offer any evidence or expert support for the assumed and unexplained propositions behind his class definition—including that 0.05 *parts per trillion* of each PFAS in blood is detectable and that such a level would be meaningful if it were detectable. *See* Herzstein Rep., R.200-3, PageID#5267-68; Wait Rep., R.200-5, PageID#5349.

Defendants opposed certification under Article III and Rule 23. Class-Cert. Opp., R.200, PageID#4777-4803.

F. The District Court Certifies A Class, But This Court Grants Interlocutory Review.

The district court certified under Rule 23(b)(2) a class of everyone subject to Ohio law who meets class counsel's 0.05 parts per trillion PFAS blood-concentration thresholds. *See* Order, R.233, PageID#6663, 6697. By the district court's estimation, the class consists of over 11 million people. *See id.*, PageID#6666. The court further expressed an intent to expand the class to every person in every state that permits asymptomatic medical-monitoring claims, placing the burden of *limiting* this expansion on Defendants. *Id.*, PageID#6697.

Defendants petitioned this Court for interlocutory review under Rule 23(f), and a panel of this Court granted the petition. *3M*, 2022 WL 4149090 (Guy, Donald, Bush, JJ.). The Court held that Defendants "would likely succeed on appeal" on at least three issues: (1) Hardwick's lack of standing; (2) the absence of class commonality and cohesion; and (3) the failure to specify the requested relief. "This cosmic class," the motions panel concluded, rests on "a questionable theory of standing and a refusal to apply a cohesion requirement endorsed by seven courts of appeals," along with "an ill-defined remedy that sits uneasily with traditional constraints on the equity power and threatens massive liability." *Id.* at *10. The class thus deserved a fresh look by a merits panel. *Id.*

SUMMARY OF THE ARGUMENT

This Court's fresh look should result in reversal.

I. The lone Plaintiff, Hardwick, lacks standing. He wants prospective relief only, but he has no evidence of a "*certainly impending*" threatened injury that would give a federal court the authority to grant prospective relief. *Clapper v. Amnesty Int'l USA*, 568 U.S. 398, 409 (2013). Rather, Hardwick does not "know what these chemicals can potentially do," Hardwick Dep., R.200-6, PageID#5434-35, and he only wants to learn about their "unknown effects," MTD Opp., R.94, PageID#523. But a desire to learn if one is injured is not an injury in fact. And even if it were, Hardwick still would not have standing because he does not trace any alleged injury to any Defendant, and the requested Science Panel and possible medical monitoring would do nothing to actually redress any alleged injury. *See 3M*, 2022 WL 4149090, at *5.

II. In any event, Rule 23(b)(2) does not permit the class certified by the district court. To satisfy that rule, a plaintiff "must illustrate a viable injunctive remedy that could grant relief to the entire class in a single stroke." *3M*, 2022 WL 4149090, at *5 n.3. But the "injunction" sought by Hardwick could not grant uniform relief to over 11 million members all at once. Nor is it even a viable *injunctive* remedy in the first place.

A. This class fails the cohesion requirement of Rule 23(b)(2), a requirement at least as rigorous as the common-issue predominance requirement of Rule 23(b)(3). The class claims are not susceptible to common proof because all the key

liability and relief questions turn on facts about each individual class member's PFAS exposures (type, amount, source, duration, etc.) and other individual circumstances (age, gender, weight, health conditions, genetic predispositions, habits, etc.). The bevy of individual factors prevents even the commonality required by Rule 23(a)(2)—and certainly precludes a finding of cohesion.

B. This class also cannot be certified under Rule 23(b)(2) because the requested relief is not viable injunctive relief. At bottom, Hardwick seeks *money* from Defendants to fund his desired "Science Panel." The district court has no authority to order that Defendant-funded "Science Panel," possibly followed by medical monitoring, under the guise of a (b)(2) "injunction." That is especially true when Hardwick's requested "injunction" bears no resemblance to the traditional equitable relief that federal courts can issue. *See Grupo Mexicano de Desarrollo S.A. v. All. Bond Fund, Inc.*, 527 U.S. 308, 318 (1999).

C. The class independently cannot be certified under Rule 23(b)(2) because the requested injunctive relief is not adequately specified. Hardwick's description of the Science-Panel and medical-monitoring relief falls far short of the detail required to satisfy Rule 23(b)(2) or Rule 65.

III. The class definition separately requires reversal because, as a practical matter, class members cannot actually be identified. Implementing the definition would require testing millions of people for PFAS blood-concentration levels that

are impossible to detect. This defect requires reversal on grounds separate from "ascertainability," although the class fails that requirement too.

ARGUMENT

In a Rule 23(f) appeal, as in any appeal, this Court must first ensure, *de novo*, "that subject matter jurisdiction exists," *Olden v. LaFarge Corp.*, 383 F.3d 495, 498 (6th Cir. 2004)—including "whether the class established its Article III standing," *3M*, 2022 WL 4149090, at *4. *See Lynch v. Leis*, 382 F.3d 642, 645 (6th Cir. 2004).

If there is an actual Case or Controversy, the Court "give[s] fresh review to any legal interpretations of Civil Rule 23" and "abuse-of-discretion review to the district court's ultimate judgment whether to certify a class." *Tarrify Props., LLC v. Cuyahoga County*, 37 F.4th 1101, 1106 (6th Cir. 2022). An abuse of discretion occurs, necessarily, "when the district court relies on erroneous findings of fact, applies the wrong legal standard, misapplies the correct legal standard when reaching a conclusion, or makes a clear error of judgment." *Reeb v. Ohio Dep't of Rehab. & Corr.*, 435 F.3d 639, 644 (6th Cir. 2006).

Under Rule 23, class certification is the exception, not the rule. *See Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338, 348 (2011). The plaintiff bears the burden of showing that the exception applies, *In re Am. Med. Sys., Inc.*, 75 F.3d 1069, 1086 (6th Cir. 1996), and must provide evidence meeting Rule 23's requirements because the Rule "does not set forth a mere pleading standard," *Dukes*, 564 U.S. at 350.

I. THE DISTRICT COURT LACKED JURISDICTION OVER THIS ACTION.

As in any federal action, a class action may not proceed unless the plaintiff has satisfied all three requirements of Article III—injury in fact, traceability, and redressability. *Frank v. Gaos*, 139 S. Ct. 1041, 1046 (2019); *3M*, 2022 WL 4149090, at *4. Hardwick satisfies none of them, requiring dismissal.

A. Hardwick Has Experienced No Injury In Fact.

The "'first and foremost' of standing's three elements" is "injury in fact." *Spokeo, Inc. v. Robins*, 578 U.S. 330, 338-39 (2016). A plaintiff must have suffered an "injury," which must be "concrete, particularized, and actual or imminent." *TransUnion LLC v. Ramirez*, 141 S. Ct. 2190, 2203 (2021). This means that the claimed grievance may not be "abstract," "generalized," "conjectural or hypothetical." *Spokeo*, 578 U.S. at 340; *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 575-76 (1992).

The asserted injury also must correspond to the kind of relief sought. *Hearring v. Sliwowski*, 806 F.3d 864, 868 (6th Cir. 2015); *see TransUnion*, 141 S. Ct. at 2208. "To establish standing for a forward-looking injunction"—the only kind of relief Hardwick claims to seek here—the plaintiff must show a "likelihood of substantial and immediate irreparable injury." *Hearring*, 806 F.3d at 868; *see Lyons*, 461 U.S. at 103. "[P]ast wrongs" alone thus do not provide standing to obtain injunctive relief. *Lyons*, 461 U.S. at 103; *see, e.g.*, *O'Shea v. Littleton*, 414 U.S. 488,

495-96 (1974). Instead, for prospective relief, the plaintiff must show a "*certainly impending*" future injury that is either ongoing or new. *Clapper*, 568 U.S. at 409.

The nature of plaintiffs' burden to demonstrate this concrete, certainly impending injury depends on the stage of the case. When a case moves past the pleading stage, as this case has, plaintiffs cannot merely *allege* a qualifying injury if the defendant disputes it. They must offer "evidentiary proof" for the purported injury. *Lyngaas v. Ag*, 992 F.3d 412, 428 (6th Cir. 2021); *see also Lujan*, 504 U.S. at 561; *3M*, 2022 WL 4149090, at *6 (citing cases).

Hardwick has not established any qualifying injury here. Far from showing a certainly impending injury with evidentiary proof, the "whole reason" Hardwick brought this action is to determine "*whether* he has an elevated risk of disease" that might qualify as an Article III injury. *3M*, 2022 WL 4149090, at *6. He sues to find out *if* he is injured, with "his *lack* of such proof [being] the point of his lawsuit." *Id.*

Hardwick's complaint made that clear. He alleged that he wants a "Science Panel" to study PFAS because he is "concerned and fearful of the effects of having PFAS in [his] blood." Compl., R.96, PageID#579, 590; *see also* MTD Opp., R.94, PageID#523 (Hardwick "fear[s] the unknown effects of … PFAS"). But he admitted he is unsure "what [those] effects will and/or are reasonably likely and/or probable to do." Compl., R.96, PageID#579. Hardwick cannot walk away from these injury-disclaiming allegations, which are "judicial admissions" and "conclusively

binding." *Barnes v. Owens-Corning Fiberglas Corp.*, 201 F.3d 815, 829 (6th Cir. 2000).

But Hardwick does not walk away; the record confirms what those allegations reflect: Hardwick has no Article III injury to support injunctive relief. *See Lyngaas*, 992 F.3d at 428; *Lujan*, 504 U.S. at 561. He submitted no evidence, via experts or otherwise, in support of any particularized injury. To the contrary, he testified that he does not "know what [PFAS] can potentially do" to him, and that he wants to "learn [his] personal risk" of injury. Hardwick Dep., R.200-6, PageID#5434-35. The goal of his suit is thus "to gather the information required to see what the risk is." *Id.*, PageID#5433-34. He hopes to "determine what the effects [of PFAS] are on [his] body." *Id.* He wants, at bottom, "knowledge" and "[no]thing else" "from this lawsuit." *Id.*, PageID#5435. Hardwick's aim, then, is to discover *whether* he has been injured.

That aim, however, cannot be pursued in an Article III court. A desire to learn whether one has an injury is not an injury in fact. *See Shelby Advocates for Valid Elections v. Hargett*, 947 F.3d 977, 981 (6th Cir. 2020). One must instead come to court alleging (and then proving) a real, existing injury—or when seeking prospective relief, as Hardwick does here, a substantial threat of imminent and real future injury. Hardwick has not done so.

What Hardwick has is, at most, an unknown "*possible* future injury," which is "not sufficient" under binding precedent. *Clapper*, 568 U.S. at 409; *see also id.* at 410-14 (even an "objectively reasonable likelihood" of a "potential future" injury not enough); *Yeager v. Gen. Motors Corp.*, 265 F.3d 389, 395 (6th Cir. 2001) ("potential future injury" "too speculative").

Given these obstacles, Hardwick has at times tried to reframe his injury as the "unwanted presence of PFAS in his blood." Class-Cert. Mot., R.210, PageID#6358; MTD Opp., R.94, PageID#514-15 (injury is "invasion" of PFAS); *see also 3M*, 2022 WL 4149090, at *4 (Hardwick "fail[ed] to clarify" his theory of injury). The district court did not endorse that claimed injury when certifying the class. Order, R.233, PageID#6675. And for good reasons: any such injury (1) could not support *prospective injunctive* relief, and (2) is not injury in fact anyway.

First, even if "mere presence" of a substance unknown to cause injury *were* injury in fact, it would not be injury capable of supporting the only relief Hardwick seeks here: prospective injunctive relief. Hardwick has confirmed that this purported injury (the mere presence of PFAS in his blood) "has already occurred." MTD Opp., R.94, PageID#515. Such an alleged "[p]ast injury" is "inadequate to constitute an injury in fact when," as here, "the plaintiff seeks injunctive relief." *Crawford v. United States Dep't of Treasury*, 868 F.3d 438, 455 (6th Cir. 2017) (quoting *Lyons*, 461 U.S. at 102). This Court confirmed as much recently in *Davis*

v. Colerain Twp., 51 F.4th 164 (6th Cir. 2022), when it held that a plaintiff resting on a "past injury" "may not seek a forward-looking remedy." *Id.* at 171. Therefore, even if Hardwick's alternative, asserted injury could qualify as an injury in fact sufficient for *retroactive* relief (which it could not for the reasons explained below), it would not be an injury sufficient for the *prospective* relief he demands here. *See Lyons*, 461 U.S. at 102-05. For that kind of relief, Hardwick would need evidence of a certainly impending future injury—which (again) is contrary to his whole theory of the case.

Second, the mere unwanted presence of a substance in the body—even if alleged to be "unhealthy … in any amount"—is not an Article III injury in fact even for retrospective relief. *E.g.*, *Young v. Johnson & Johnson*, 2012 WL 1372286, at *3 (D.N.J. Apr. 19, 2012). Presence alone, even of probable human carcinogens (which Hardwick has not shown for any, let alone all, PFAS), is simply "too attenuated and not sufficiently imminent to confer Article III standing." *Herrington v. Johnson & Johnson*, 2010 WL 3448531, at *3 (N.D. Cal. Sept. 1, 2010). Courts thus regularly dismiss cases tied to such "mere exposure" or "mere presence" theories. *See id.*; *see also, e.g.*, *Owner-Operator Indep. Drivers Ass'n, Inc. v. U.S. Dep't of Transp.*, 879 F.3d 339, 347 (D.C. Cir. 2018) ("unharmed mere existence" theory not "injury in fact"); *Koronthaly v. L'Oreal USA, Inc.*, 374 F. App'x 257, 259

(3d Cir. 2010) (exposure to lead in lipstick, without adverse health effects, does not confer Article III standing).

Analogizing this "mere presence" theory of injury to common-law battery does not save Hardwick's lawsuit. *See* Class-Cert. Reply, R.210, PageID#6323, 6358 (noting battery claim). The defining element of battery is "harmful or offensive" contact, *Love v. City of Port Clinton*, 524 N.E.2d 166, 167 (Ohio 1988), and Hardwick has offered no evidence of that. He has disclaimed knowing whether the mere presence of PFAS in his blood is "harmful." *Supra* at pp. 20–21. And he offers nothing to show that such presence is "offensive to a reasonable sense of personal dignity" under "the social usages prevalent at the time and place." *Love*, 524 N.E.2d at 167.

Indeed, it has long been true that people inhale or ingest trace amounts of all sorts of substances released into the environment by others. To allow standing based on a battery theory equally applicable to virtually everyone would cast aside the "history and tradition" that must "guide" the "types of cases that Article III empowers federal courts to consider." *TransUnion*, 141 S. Ct. at 2204; *see also id.* at 2209-10 (no standing because injury did not track common law defamation).

In sum, then, the "mere presence" of something not shown to be harmful in a particularized way is not injury in fact, much less sufficient injury to support the prospective injunctive relief that Hardwick seeks.

B. Hardwick Does Not Establish Traceability.

This case independently fails the second requirement of Article III: traceability. Even when a plaintiff proves injury in fact, a federal court has jurisdiction only if that plaintiff also shows that the "injury was likely caused by the defendant." *TransUnion*, 141 S. Ct. at 2203. That is because federal courts do not exist to treat injuries, but to resolve disputes. Hardwick's purported injury thus must be "fairly traceable to the challenged conduct" of Defendants. *Spokeo*, 136 S. Ct. at 1547. And Hardwick again cannot rely on mere allegations "at this stage," but must point to "'evidentiary proof' of 'a causal connection between the injury and the conduct complained of.'" *3M*, 2022 WL 4149090, at *6 (quoting *Lyngaas*, 992 F.3d at 428; *Lujan*, 504 U.S. at 560).

Hardwick has not offered any such proof. To the contrary, Hardwick made what this Court called a "particularly troubling" concession: He admitted that he has "no idea" through which of the "litany of possible pathways" he was exposed to PFAS. *3M*, 2022 WL 4149090, at *6; *see, e.g.*, Hardwick Dep., R.200-6, PageID#5418-19. And Hardwick offered no expert or other evidence to fill the void. This is a case, moreover, alleging potential exposures to "over 5,000 discrete compounds" present *somewhere in the environment*—substances used "for decades" in "scores of products by scores of manufacturers." *3M*, 2022 WL 4149090, at *6.

Thus, to say that the "line of causation" is "attenuated at best" is an understatement. *Allen v. Wright*, 468 U.S. 737, 758 (1984).

Even more, there is no basis in the record for connecting any line of causation to *any* Defendant here. Hardwick's alleged exposure may well be due to the "independent role of third-party actors not before the court," which itself precludes traceability. *United States v. Carroll*, 667 F.3d 742, 745 (6th Cir. 2012). Hardwick's employer, neighbor, or some total stranger may have "released," "handled," or "used" PFAS in a way that caused his alleged exposure. Compl., R.96, PageID#567, 588-89. Hardwick has "no idea." Hardwick Dep., R.200-6, PageID#5418-19. He thus "comes up short" on traceability. *3M*, 2022 WL 4149090, at *6; *see White v. United States*, 601 F.3d 545, 552 (6th Cir. 2010).

C. The Requested Relief Would Not Redress Hardwick's Purported Injury.

Even when a plaintiff has shown injury in fact and traceability, a federal court has no authority to act unless it can "redress" the injury by legitimate "judicial relief." *TransUnion*, 141 S. Ct. at 2203. That redress must actually "remedy the injury suffered." *Steel Co. v. Citizens for Better Env't*, 523 U.S. 83, 103 (1998). To qualify as constitutional redress, then, the relief must "fix the problem at hand," *Carroll*, 667 F.3d at 745, and it must do so "direct[ly]," *Linda R.S. v. Richard D.*, 410 U.S. 614, 618 (1973).

Hardwick has failed to satisfy the redressability requirement for either of his two asserted "injuries" (the desire to know whether PFAS might create a risk of harm, and the mere presence of PFAS in his body).

Take first Hardwick's "concern[] and fear[]" about the "unknown" "effects" of "PFAS in [his] blood." Compl., R.96, PageID#579; MTD Opp., R.94, PageID#523; *see also* Hardwick Dep., R.200-6, PageID#5434 ("curiosity and fear" concerning PFAS). No judicial relief can remedy that. "[F]ears of hypothetical future harms" lie beyond the judicial bailiwick. *Clapper*, 568 U.S. at 416. Indeed, even if Hardwick's proposed Science Panel made findings that "direct[ly]" bore on the five PFAS in him, *Linda*, 410 U.S. at 618, Hardwick would obtain only "psychic satisfaction." *Steel Co.*, 523 U.S. at 103. But that feeling does not count as constitutional redress. *See id.* A plaintiff cannot, in other words, sue to obtain only "knowledge"—as Hardwick says he is doing. And Hardwick might not even obtain the knowledge he seeks because the general Science Panel conclusions would almost certainly leave Hardwick's particular risks from the five PFAS in his blood uncertain, which also negates redressability. *See Simon v. E. Ky. Welfare Rights Org.*, 426 U.S. 26, 43 (1976); *Warth v. Seldin*, 422 U.S. 490, 507 (1975).

Plaintiff's other injury theory, the unwanted presence of PFAS within him, fares no better. As this Court already recognized, the most obvious "major issue" with this theory is that neither the Science Panel nor any medical monitoring would

do anything to change the presence of PFAS in Hardwick's blood. *3M*, 2022 WL 4149090, at *5-6. The requested relief would therefore not "fix the problem at hand." *Carroll*, 667 F.3d at 745. After the Science Panel completed its work, and any hypothetical medical monitoring occurred, the "fate of" this claimed injury—the presence of PFAS—"would [not] be different." *Kardules v. City of Columbus*, 95 F.3d 1335, 1355 (6th Cir. 1996).

Finally, under either injury theory (the fear of the unknown or the presence of PFAS), redressability is absent for yet another reason. A federal court would have no power, under *Grupo Mexicano de Desarrollo S.A. v. All. Bond Fund, Inc.*, 527 U.S. 308, 318 (1999), to issue the far-from-"traditional" equitable relief that Hardwick requests. *See infra* Part II.B. The remedy Hardwick seeks is thus "unavailable," *id.* at 333, and accordingly cannot provide the constitutionally required redress. *See TransUnion*, 141 S. Ct. at 2203.

* * *

It is time to end Hardwick's attempts to bypass federal and state regulators and public-health authorities through a research project masquerading as a Case or Controversy. Hardwick may be dissatisfied with the existing and ongoing PFAS research and regulation. But that is no basis for a federal court to intervene. "The federal courts are not free-range problem solvers," *Hearring*, 806 F.3d at 868, and "a class action is not intended to be an easy way around research problems," *Rowe*

v. E.I. duPont de Nemours & Co., 2008 WL 5412912, at *14 (D.N.J. Dec. 23, 2008). Hardwick cannot maintain this action without injury in fact, traceable to particular defendants, and redressable by a favorable court judgment—all of which are lacking here. This Court should order dismissal for lack of jurisdiction.

II. RULE 23(B)(2) DOES NOT PERMIT THE CLASS CERTIFIED BY THE DISTRICT COURT.

The district court also wrongly certified this suit to proceed as a class action. Since at least the Supreme Court's decision in *Amchem Prods., Inc. v. Windsor*, 521 U.S. 591, 625-27 (1997), courts have routinely denied class certification for personal-injury and medical-monitoring claims under Rule 23(b)(3) because there are no common answers to purportedly common questions, or because common questions do not predominate. *See, e.g.*, *Ball v. Union Carbide Corp.*, 385 F.3d 713, 727-28 (6th Cir. 2004); *In re Am. Med. Sys., Inc.*, 75 F.3d 1069, 1084-86 (6th Cir. 1996); *In re St. Jude Med., Inc.*, 425 F.3d 1116, 1121-23 (8th Cir. 2005).

Hardwick attempts to evade that settled, sensible authority. He seeks an "injunction" in order to pursue class certification under Rule 23(b)(2), which he claims, incorrectly, is less demanding than Rule 23(b)(3). And he frames his requested relief at a stratospheric level of generality—an order directing Defendants to pay for a novel panel of experts to make unspecified findings in unspecified ways that could somehow lead to undefined medical-monitoring relief—in order to create the illusion of common issues. But that illusion cannot withstand scrutiny.

Hardwick's vague description of the "injunction"—which violates (b)(2)'s specificity requirement—obscures the reality that he is seeking intensely individualized relief and that no central question in this case has a common, classwide answer. By blessing Hardwick's maneuvers and certifying an 11-million-person-plus non-opt-out class under Rule 23(b)(2), the district court erred.

As this Court recognized in its Rule 23(f) order, Rule 23(b)(2) imposes demanding requirements. *3M*, 2022 WL 4149090, at *7-9. A class may be certified under (b)(2) only when the plaintiff proves that the class satisfies the requirements of Rule 23(a) and, additionally, defendants have "acted or refused to act on grounds that apply generally to the class, so that final injunctive relief or corresponding declaratory relief is appropriate respecting the class as a whole," Fed. R. Civ. P. 23(b)(2). The class here fails to satisfy these requirements in three principal ways. (A) The class lacks the cohesion (and commonality) required. (B) The requested relief is not appropriate injunctive relief. And (C) Hardwick has not provided the necessary details regarding his requested relief. For all those reasons, the class certification order cannot stand.

A. The Class Lacks The Required Cohesion.

Rule 23(b)(2) requires a class to be as cohesive as, or more cohesive than, an opt-out class under Rule 23(b)(3). Yet the district court ruled that (b)(2) imposed no cohesion requirement at all, and thus subjected this massive, mandatory class only

to the commonality requirement of Rule 23(a)(2). That was wrong. As the Rule 23(f) Order explained, Rule 23(b)(2) cohesion—beyond commonality—is a "well-credentialed requirement" supported by rulings from six other Circuits and decisions in this Circuit as well. *3M*, 2022 WL 4149090, at *8. When the proper cohesion requirement is applied (and even if only commonality were required), this class fails because there are no common classwide answers and resolving the core issues here requires far too many individualized determinations.

1. The District Court Applied The Wrong Legal Standard Under Rule 23(b)(2), Which Demands A Heightened Cohesion Showing.

The district court erred by certifying a Rule 23(b)(2) class without requiring any cohesion greater than commonality. *See 3M*, 2022 WL 4149090, at *8 (recognizing that cohesion "represents an additional hurdle" beyond commonality). A heightened cohesion requirement is "well-credentialed." *Id.*

This Court's cases show that there is an independent (b)(2) cohesion requirement. This Court has long recognized that mandatory classes "must be carefully scrutinized and sparingly utilized," *In re Telectronics Pacing Sys., Inc.*, 221 F.3d 870, 881 (6th Cir. 2000), because they lack key protections of a (b)(3) class (such as notice and the opportunity to opt out), *Coleman v. Gen. Motors Acceptance Corp.*, 296 F.3d 443, 447-48 (6th Cir. 2002). "[H]omogeneity" among class members is thus a "defining characteristic"—the "very nature"—of a (b)(2) class.

Reeb v. Ohio Dep't of Rehab. & Corr., 435 F.3d 639, 649 (6th Cir. 2006); *Coleman*, 296 F.3d at 447-48. For a class to be certified under (b)(2), then, the class members' claims must have few, if any, differences. *Reeb*, 435 F.3d at 649.

Applying these principles, this Court has reversed class certification citing "the well-recognized rule that Rule 23(b)(2) classes must be cohesive." *Romberio v. UnumProvident Corp.*, 385 F. App'x 423, 433 (6th Cir. 2009). "[W]here individualized determinations are necessary," *Romberio* held, "the homogeneity needed to protect the interests of absent class members is lacking." *Id.* at 432-33. This Court thus rejected the argument, endorsed by the district court here, that "the presence of individual issues is immaterial because Rule 23(b)(2), unlike Rule 23(b)(3), contains no predominance requirement." *Id.* at 433. This Court explained, on the contrary, that "cohesiveness, or homogeneity, is vital to Rule 23(b)(2) actions." *Id.* Understandably, then, district courts in this Circuit reviewing proposed (b)(2) classes have demanded, in addition to commonality, cohesion. *See, e.g.*, *Creech v. Emerson Elec. Co.*, 2019 WL 1723716, at *14 (S.D. Ohio Apr. 18, 2019).

Courts around the country have also rejected non-cohesive classes certified under Rule 23(b)(2). Indeed, every Circuit to address the question, save the Ninth, has adopted a heightened cohesion requirement under Rule 23(b)(2). *See Reid v. Donelan*, 17 F.4th 1, 11 (1st Cir. 2021); *Barnes v. Am. Tobacco Co.*, 161 F.3d 127, 143 (3d Cir. 1998); *M.D. ex rel. Stukenberg v. Perry*, 675 F.3d 832, 838 (5th Cir.

2012); *Kartman v. State Farm Mut. Auto. Ins. Co*., 634 F.3d 883, 893 n.8 (7th Cir. 2011); *Ebert v. Gen. Mills, Inc*., 823 F.3d 472, 480 (8th Cir. 2016); *Shook v. Bd. of Cnty. Comm'rs of Cnty. of El Paso*, 543 F.3d 597, 604 (10th Cir. 2008) (Gorsuch, J.); *but see Senne v. Kan. City Royals Baseball Corp.*, 934 F.3d 918, 937 (9th Cir. 2019).

These courts treat (b)(2) cohesion as at least as stringent as (b)(3) predominance (which requires that common issues predominate over individual ones)—and certainly more stringent than (a)(2) commonality. *See, e.g.*, *Shook*, 543 F.3d at 604; *Maldonado v. Oschner Clinic Found.*, 493 F.3d 521, 524 (5th Cir. 2007). Indeed, several courts—including the Third Circuit in a case cited approvingly by this Court in *Romberio*—hold that "a (b)(2) class may require *more* cohesiveness than a (b)(3) class." *Barnes*, 161 F.3d at 142 (emphasis added); *see also Ebert*, 823 F.3d at 480; *Reid*, 17 F.4th at 11.

The district court erred in breaking from this authority and refusing to apply any sort of cohesion requirement beyond (a)(2) commonality. Order, R.233, PageID#6704-06; *see 3M*, 2022 WL 4149090, at *8.

The district court first adopted the Ninth Circuit's view that a cohesion requirement is atextual because "Rule 23(b)(2) never mentions 'cohesiveness.'" *Id.*, PageID#6706. But as then-Judge Gorsuch explained, cohesiveness is a "textually authorized consideration" that follows directly from requirements "Rule 23(b)(2)

imposes" "[b]y its terms." *Shook*, 543 F.3d at 604. That Rule states that defendants must have "acted or refused to act on grounds that *apply generally* to the class." Fed. R. Civ. P. 23(b)(2) (emphasis added). And an injunction must be "appropriate respecting the class *as a whole*." *Id.* (emphasis added). Those textual requirements necessarily cannot be satisfied if individual issues could preclude injunctive relief for some class members, or require different injunctive relief among class members. A cohesion requirement beyond commonality, therefore, simply effectuates Rule 23(b)(2)'s plain terms, as many courts have held.

In ruling otherwise, the district court also suggested that Supreme Court precedent weighs against a Rule 23(b)(2) cohesion requirement. But the opposite is true. *Wal-Mart* explained that, by requiring that a "class seek[] an indivisible injunction benefiting all of its members at once," Rule 23(b)(2) *presupposes* the common-issue predominance and class-action superiority demanded by Rule 23(b)(3). 564 U.S. at 362-63; *see also Gates v. Rohm & Haas Co.*, 655 F.3d 255, 264 (3d Cir. 2011) (noting that "*Wal-Mart* … highlighted the importance of cohesiveness"). Nor is there anything to the contrary in the district court's observation that *Amchem*—which pre-dated *Wal-Mart*—held that "the Rule 23(b)(3) predominance inquiry tests whether proposed classes are sufficiently cohesive to warrant adjudication by representation." *Amchem*, 521 U.S. at 625-27. That holding says nothing about the requirements of Rule 23(b)*(2)*, which was not at issue in

Amchem. And in fact, *Amchem* indicated that (b)(2) applies to a *narrower* set of classes than (b)(3), which it held required cohesiveness. 521 U.S. at 614-15.

The district court failed to account, too, for other considerations that also support a demanding cohesion requirement. For example, Rule 23 "provides no opportunity for … (b)(2) class members to opt out, and does not even oblige the District Court to afford them notice of the action." *Wal-Mart*, 564 U.S. at 361-62. Given this no-notice, no-opt-out structure, "it would be unjust to bind absent class members to a negative decision where the class representatives' claims present different individual issues than the claims of the absent members." *Romberio*, 385 F. App'x at 433 (quoting *Barnes*, 161 F.3d at 143).

In addition, requiring a high level of class cohesion for (b)(2) classes promotes judicial economy. If common issues do not predominate, a suit "could become unmanageable and little value would be gained in proceeding as a class action" given the "significant individual issues" that could arise. *Id.* (quoting *Barnes*, 161 F.3d at 143); *Shook*, 543 F.3d at 604.

A lax Rule 23(b)(2) standard, moreover, encourages efforts to manufacture dubious claims for injunctive relief to evade the demands of Rule 23(b)(3)—a dynamic well illustrated by this case. Just as *Wal-Mart* rejected an effort to use (b)(2) to circumvent (b)(3), 564 U.S. at 360-67, this Court should reject Hardwick's effort

to lower the bar for (b)(2) certification to bypass (b)(3) requirements he cannot satisfy. *See Amchem*, 521 U.S. at 625-27.

Rule 23(b)(2), in short, contains a "well-credentialed" and "well-established" cohesiveness requirement more demanding than commonality and at least on par with the (b)(3) predominance requirement. *3M*, 2022 WL 4149090, at *8; *Romberio*, 385 F. App'x at 433. The district court erred in holding otherwise.

2. The Class Fails To Satisfy Rule 23(a) Commonality, Let Alone The Heightened 23(b)(2) Cohesion Standard.

Under the correct Rule 23 standards, the class certification order must be reversed. Hardwick's class is anything but cohesive.

This Court already expressed "serious concern" that this class does not satisfy even the *commonality* requirement of Rule 23(a)(2). *3M*, 2022 WL 4149090, at *7 (calling commonality "highly suspect"). And rightfully so. The common question the district court identified—"whether exposure to PFAS is sufficiently harmful to warrant medical monitoring"—cannot be *answered* commonly across the millions of class members. *Id.*; *see Wal-Mart*, 564 U.S. at 352. As the unrebutted expert submissions showed (and as this Court recognized), the answer would hinge on a host of individualized inquiries—involving (to name a few) "the type, amount, and timing of each of the millions of class members' exposures, as well as his or her background health risks related to age, gender, medical history, genetic predispositions, and lifestyle choices." *3M*, 2022 WL 4149090, at *7.

That is enough to overturn the district court's certification decision. No core liability or relief question would generate a common answer across the class as a whole. *See Wal-Mart*, 564 U.S. at 352; *Ball*, 385 F.3d at 727-28. And if the class cannot satisfy commonality, it certainly cannot satisfy any cohesion requirement beyond that. *See, e.g.*, *Am. Med. Sys.*, 75 F.3d at 1084-86; *Wilson v. Brush Wellman, Inc.*, 817 N.E.2d 59, 65-66 (Ohio 2004); *Gates*, 655 F.3d at 264-71; *In re St. Jude Med., Inc.*, 425 F.3d 1116, 1121-23 (8th Cir. 2005).

Consider a few examples that confirm these points:

Establishing injury. Ohio medical-monitoring claims, if cognizable at all, require a "legally significant increased risk" of serious disease. *Baker v. Chevron U.S.A. Inc.*, 533 F. App'x 509, 526 (6th Cir. 2013). But whether any given class member has such a risk from PFAS exposures is a highly individualized issue that depends on multiple member-specific factors.

First, it matters which of the 5,000 or so kinds of PFAS a class member was exposed to. *See* Beck Rep., R.200-2, PageID#5147-48; 5159-70; Reitman Rep., R.200-4, PageID#5313, 5319-21. Different PFAS have different properties that would affect whether a particular PFAS might be harmful, and, if so, at what level. *See* Beck Rep., R.200-2, PageID#5157-58, 5180-88; Reitman Rep., R.200-4, PageID#5314-18.

Second, risks for particular class members also would vary based on the amount (and duration) of any PFAS exposure, as well as current PFAS blood levels. Beck Rep., R.200-2, PageID#5149-50. After all, even essential and benign substances (such as salt) can be harmful at high enough levels, and even recognized toxins (such as manganese) are innocuous at low enough levels. Beck Rep., R.200-2, PageID#5149-50, 5159, 5173-80; Herzstein Rep., R.200-3, PageID#5267-68; Alexander Rep. R.200-1, PageID#4990-91. And the exposure levels vary tremendously among the millions of class members. *See* Beck Rep., R.200-2, PageID#5159-79.

Third, individual demographic and health factors—which of course vary immensely—are also key to any risk assessment. Age, gender, weight, genetic predispositions, medical history, and existing health issues would all be essential factors in determining whether any particular class member might face increased health risks from any particular PFAS. *See* Beck Rep., R.200-2, PageID#5173-77; 5183-87; 5189; Herzstein Rep., R.200-3, PageID#5256-58; Alexander Rep. R.200-1, PageID#4990-91.

Even in cases alleging exposure to supposed toxic substances with far less variation, these sorts of individualized issues have precluded certification—because they prevent class cohesion. *See, e.g.*, *Amchem*, 521 U.S. at 624 (no predominance because "[c]lass members were exposed to different asbestos-containing products,

for different amounts of time, in different ways, and over different periods" and had different backgrounds); *Rhodes v. E.I. du Pont de Nemours & Co.*, 253 F.R.D. 365, 374-80 (S.D.W. Va. 2008) (denying certification in a case involving only one type of PFAS for precisely the reasons set out in the unrebutted expert reports here); *Rowe*, 2008 WL 5412912, at *9-22 (similar PFAS case); *Palmer v. 3M Co.*, 2007 WL 1879844, slip op. at 18-20, 42-47 (Minn. Dist. Ct. Jun. 19, 2007). Indeed, in a medical-monitoring case, this Court held there was no commonality or typicality because "[e]ach individual's claim was … proportional to his or her exposure to toxic emissions or waste." *Ball*, 385 F.3d at 728; *accord, e.g.*, *Wilson*, 817 N.E.2d at 65-66 (Ohio Supreme Court holding that an Ohio class seeking medical monitoring for exposure to toxic substances failed for "lack of cohesiveness"). This case calls for the same conclusion.

Establishing causation. Another source of cohesion-destroying variation is the need for individual inquiries into causation, an essential element of Hardwick's claims. *Anderson v. St. Francis-St. George Hosp., Inc.*, 671 N.E.2d 225, 227 (Ohio 1996). No common evidence could link every class member's allegedly increased health risks to the conduct of any of the Defendants, let alone all of them.

Millions of class members may have been exposed to two or more of thousands of PFAS, in countless different ways, at different times and places, due to countless different entities. *See, e.g.*, *supra* at pp. 6–8. As a result, class members

would have vastly different causation arguments and evidence depending on where, when, and how they came into contact with PFAS. *Id.* The permutations are nearly endless. *Id.*; *see, e.g.*, Beck Rep., R.200-2, PageID#5161-62. As this Court explained, "even if one class member could 'prove a risk of injury caused by a given level of exposure to a certain type of PFAS linked to one defendant,' it would say 'nothing about another class member's ability to prove risk of injury caused by a different level of exposure to a different amount of a different PFAS linked to a different Defendant.'" *3M*, 2022 WL 4149090, at *7.

These sorts of individual causation questions—even on a much smaller scale—have frequently defeated class certification on commonality, predominance, and cohesion grounds. *See, e.g.*, *Ball*, 385 F.3d at 728; *Am. Med. Sys.*, 75 F.3d at 1084-85 ("there is no common cause of injury" because "the products are different, each plaintiff has a unique complaint, and each receives different information"); *In re Welding Fume Prod. Liab. Litig.*, 245 F.R.D. 279, 310-11 (N.D. Ohio 2007) (similar); *Palmer*, 2007 WL 1879844, slip op. at 43-44 (similar in PFAS case). They destroy commonality and cohesion here too.

Establishing negligence. The negligence claim requires class-member- and Defendant-specific reasonableness, foreseeability, and knowledge determinations. *See* 1 CV Ohio Jury Instrs. 401.01, 401.07. Given the wide variety of PFAS-containing products used over the last 70 years, the many different entities associated

with their production, sale, and use, and the different paths of exposure, those determinations would require individual inquiries that would be truly overwhelming. *See* Reitman Rep., R.200-4, PageID#5314-23. Similar product and use variations have led this Court and others to reject certification of negligence claims. *See, e.g.*, *Am. Med. Sys.*, 75 F.3d at 1074, 1084-85 ("products are different"); *Welding Fume*, 245 F.R.D. at 309-10 ("different welding products, warnings, employers, work environments, and so on").

Establishing battery. The battery claim, too, would be consumed by individualized issues. *See Anderson*, 671 N.E.2d at 227 (battery elements). Whether any particular class member's exposure to PFAS satisfies the harmful-or-offensive-touching requirement of a battery claim would depend on the type of PFAS, the amount and nature of his or her exposure, and his or her health circumstances. *See* Beck Rep., R.200-2, PageID#5153-54; 5163-71; Herzstein Rep., R.200-3, PageID#5256-57; *see also Rhodes v. E.I. du Pont de Nemours & Co.*, 636 F.3d 88, 95 (4th Cir. 2011) (rejecting battery claim based on asymptomatic PFOA exposure). And proof of the required *intentional* touching would lead to Defendant-, time-, and product-specific inquiries that would vary among class members with their bevy of different exposure circumstances. *See, e.g.*, *Palmer*, 2007 WL 1879844, slip op. at 45-46 (refusing to certify a class for PFAS battery claim).

Establishing affirmative defenses. Defendants also have several affirmative defenses that would add to the individual issues that destroy any class cohesion. *See Sandusky Wellness Ctr., LLC v. ASD Specialty Healthcare, Inc.*, 863 F.3d 460, 470 (6th Cir. 2017) (defense defeated common-issue predominance). For example, statute-of-limitations defenses hinge on the knowledge and exposure circumstances of individual class members. *See Barnes*, 161 F.3d at 149; *Wilson*, 817 N.E.2d at 545. The same is true for comparative-negligence and assumption-of-risk defenses. *See Barnes*, 161 F.3d at 146-49; *In re Prempro*, 230 F.R.D. 555, 567 (E.D. Ark. 2005). And the government-contractor defense depends, in part, on the kind of PFAS product that led to a class member's exposure. *See Boyle v. United Techs. Corp.*, 487 U.S. 500 (1988).

Establishing class membership. Even the fundamental prerequisite of being a class member could not be established with uniform evidence. Class members are those with the required infinitesimal PFAS blood levels who are "subject to the laws of Ohio." Order, R.233, PageID#6663. But determining whether someone is "subject to Ohio law" would be a highly individualized inquiry. A court would have to "thoroughly analyze[]" multiple "specific factors" and the "interests of the [various] states involved" to "mak[e] an equitable choice-of-law determination" for each class member—a "perplex[ing]" determination even for a single plaintiff. *Morgan v. Biro Mfg. Co.*, 474 N.E.2d 286, 288 (Ohio 1984).

Consider Hardwick himself. He claims he was exposed to PFAS through firefighting foam where he worked—in Kentucky. That would create a presumption that *Kentucky law* applies. *See id.* at 289. A court would then have to consider whether some other state has "a more significant relationship to the lawsuit"—using some *eleven factors*. *Id.* at 289 & n.6. The need for such multifactorial, individual choice-of-law determinations destroys cohesion. *See Pilgrim v. Universal Health Card, LLC*, 660 F.3d 943, 946-49 (6th Cir. 2011) (rejecting a class because of these kinds of individualized Ohio choice-of-law principles).

* * *

In short, virtually everything about the class claims is individualized in a way that thoroughly precludes class certification. On (a)(2) commonality or (b)(2) cohesion grounds, therefore, the order certifying the class should be reversed.

B. Hardwick Does Not Seek Injunctive Relief That A Federal Court Could Award.

The class certification order also should be overturned because Hardwick does not seek a "viable injunctive remedy," as required for Rule 23(b)(2) certification. *3M*, 2022 WL 4149090, at *5 n.3. The request that Defendants pay for a Science Panel and medical monitoring is not proper "injunctive relief," Fed. R. Civ. P. 23(b)(2), because it is neither "injunctive" in nature nor within a federal court's equitable authority to award.

First, as this Court has already observed, Hardwick's request that "defendants fund, at substantial expense, both a science panel and potential medical monitoring" is "probably more analogous to a damages action than to traditional equitable relief." *3M*, 2022 WL 4149090, at *5 n.3. Ordinarily, injunctions are orders to take action or refrain from taking action, not orders to pay. *See Pac. Reinsurance Mgmt. Corp. v. Fabe*, 929 F.2d 1215, 1218 (7th Cir. 1991). But Hardwick is not asking the district court to order Defendants to do anything *except* pay for unspecified studies and monitoring. Compl., R.96, PageID#590-91.

Yet Hardwick seeks certification only under Rule 23(b)(2), which is reserved for injunctive, not damages, cases. To the extent medical-monitoring relief can sometimes be injunctive, *see Zinser v. Accufix Rsch. Inst., Inc.*, 253 F.3d 1180, 1196 (9th Cir. 2001) (noting a split on this issue), Hardwick's proposed relief is not because all he ultimately wants from Defendants is *funding* for his novel Science Panel. *See, e.g.*, *Gates*, 655 F.3d at 262-63; *Zinser*, 253 F.3d at 1195-96; *Wilson*, 817 N.E.2d at 63-65.

Second, even if Hardwick did seek relief that could be "injunctive," the district court would have no authority to issue that injunction: An injunction ordering the requested Science Panel and medical monitoring is not among the traditional kinds of equitable relief that Congress authorized federal courts to award.

As the Rule 23(f) Order explained—relying on *Grupo Mexicano de Desarrollo S.A. v. All. Bond Fund*, 527 U.S. 308 (1999)—"the federal equity power 'is an authority to administer in equity suits the principles of the system of judicial remedies which had been devised and was being administered by the English Court of Chancery at the time of the separation of the two countries.'" *3M*, 2022 WL 4149090, at *5 n.3. Accordingly, "district courts purporting to issue equitable remedies under the federal equity power are constrained to those remedies 'traditionally accorded by courts of equity.'" *Id.* It does not matter if a requested "injunction" may appear sensible or if modern circumstances might make it wise in the mind of the judge. *Grupo Mexicano*, 527 U.S. at 322, 329-32. If the relief could not have been awarded traditionally, it cannot be awarded now. *Id.*; *see also, e.g.*, *Wheeling-Pittsburgh Steel Corp. v. Mitsui & Co.*, 221 F.3d 924, 927 (6th Cir. 2000) (declining request "to enjoin the import of foreign goods into the United States" because there was no "evidence to suggest that this type of relief was 'traditionally accorded by courts of equity'").

It would have been unheard of for courts in 1789 to award Hardwick's requested "injunction." Medical monitoring is a modern innovation, first mentioned in 1979 and first ordered in 1984. *See* George W.C. McCarter, *Medical Sue-Veillance: A History and Critique of the Medical Monitoring Remedy in Toxic Tort Litigation*, 45 Rutgers L. Rev. 227, 231-33 (1993). And as for science panels, there

is no precedent for the sort of panel proposed here, and other different-in-kind types of panels (*e.g.*, non-binding or settlement-based) do not appear to have arisen until the mid-1990s. *See In re Silicone Gel Breast Implant Prod. Liab. Litig.*, 1996 WL 34401813, at *6 (N.D. Ala. May 31, 1996) (appointing Fed. R. Evid. 706 expert panel).

Neither the district court nor Hardwick disputed this history. In fact, Hardwick agreed that "it would have been unheard of for an English Chancery Court hundreds of years ago to commission a science panel to make determinations about the effects of PFAS blood contamination." MTD Opp., R.94, PageID#530. That concession should end this case. Federal courts may not invent "unheard of" relief under the guise of an "injunction." *See Grupo Mexicano*, 527 U.S. at 319.

Rather than addressing the relevant, historical test, the district court and Hardwick invoked the principle that a court's equitable powers are broad and flexible. MTD Order, R.128, PageID#851-52; MTD Opp., R.94, PageID#529-31. But *Grupo Mexicano* addressed—and rejected—that precise argument. Such "flexibility is confined within the broad boundaries of traditional equitable relief." 527 U.S. at 322. A plaintiff thus must point to a historical practice, which is entirely missing here.

This should lead to reversal. Because Hardwick cannot obtain "viable" injunctive relief, he cannot obtain a Rule 23(b)(2) class. *3M*, 2022 WL 4149090, at

*5 n.3. The district court's broad approach in its decision certifying this class improperly enlarges Rule 23 and runs afoul of the Rules Enabling Act. *See Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 845 (1999) ("[N]o reading of [Rule 23] can ignore the [Rules Enabling] Act's mandate that 'rules of procedure shall not abridge, enlarge or modify any substantive right.'"); *Wal-Mart*, 564 U.S. at 367 ("disapprov[ing]" a "novel project" for assessing liability and class recovery as inconsistent with the Rules Enabling Act).

C. Hardwick Did Not Adequately Specify The Relief Requested Here.

There is yet another reason why Rule 23(b)(2) certification was improper here: Hardwick failed to provide the details about his requested relief needed to even *allow* the district court to rigorously ensure that this class seeks "final injunctive relief" that "is appropriate respecting the class as a whole." Fed. R. Civ. P. 23(b)(2).

As many decisions—including this Court's Rule 23(f) order, *3M*, 2022 WL 4149090, at *8—recognize, plaintiffs seeking certification under (b)(2) must set out the contours of their requested injunction with specificity. *See, e.g.*, *Prantil v. Arkema Inc.*, 986 F.3d 570, 580-81 (5th Cir. 2021); *Kartman*, 634 F.3d at 893; *Vallario v. Vandehey*, 554 F.3d 1259, 1267-68 (10th Cir. 2009); *cf. Reeb*, 435 F.3d at 644-45 (6th Cir. 2006) (vacating certification for "more precise information as to the nature of [plaintiff's] claims").

Without a reasonably specific description of the injunctive relief sought, a district court cannot determine either whether "injunctive relief … is appropriate respecting the class as a whole," Fed. R. Civ. P. 23(b)(2), or whether the injunction would satisfy Rule 65(d). *See 3M*, 2022 WL 4149090, at *9. As then-Judge Gorsuch summarized, "[a]t the class certification stage, the injunctive relief sought must be described in reasonably particular detail such that the court can at least 'conceive of an injunction that would satisfy [Rule 65(d)'s] requirements,' as well as the requirements of Rule 23(b)(2)." *Shook*, 543 F.3d at 605.

Of course, this rule "does not require that every jot and tittle of injunctive relief be spelled out at the class certification stage." *Prantil*, 986 F.3d at 581 (cleaned up). "[B]ut some reasonable detail as to the acts required is necessary." *Id.* "[F]ormulating an injunction at a stratospheric level of abstraction," *Shook*, 543 F.3d at 604, or "discuss[ing] injunctions [only] in their broad strokes," *Prantil*, 986 F.3d at 581, does not suffice.

Yet that is all Hardwick did here—and all the district court required. Order, R.233, PageID#6671. Hardwick argued, and the district court mistakenly agreed, that he need not "describe the relief [he] seek[s] in any specific way," because it is enough "to merely request an 'injunction' ordering defendants to pay for a science panel and medical monitoring for whomever the science panel determines necessary." *3M*, 2022 WL 4149090, at *8; *see* Class-Cert. Mot., R.164, PageID#1541 (asking

the court "to order the creation and funding of a program to design, implement, and administer appropriate medical and scientific studies, testing, and analysis for Mr. Hardwick and all the potential class members"). Hardwick has thus left critical questions entirely unanswered:

- How would the Science Panel be established and managed?
- Would it be bound by existing regulatory or other procedures for studying potential health effects of PFAS?
- Which of the thousands of types of PFAS, or trillions of combinations thereof, would it study?
- How would it measure exposures?
- What diseases and illnesses would it study?
- How would it conduct its studies?
- At what stage of the litigation would it operate?
- What evidentiary or proof standards would it use?
- What kinds of findings would it reach?
- To what extent would the findings be binding?
- What would qualify class members for monitoring?
- What illnesses or diseases would they be monitored for?
- How would individual demographic or health considerations figure into any monitoring?
- How would the monitoring be administered?

Hardwick "lack[s] in-circuit authority for the proposition that [he] can permissibly define the[] requested 'injunction at this stratospheric level of abstraction.'" *3M*, 2022 WL 4149090, at *8. And "significant authorities," as well as first principles, require more specificity. *Id.* Indeed, "difficulty in specifying exactly what [a plaintiff] seek[s] from an injunction" often "highlights the fact that individualized issues … overwhelm class cohesiveness." *Maldonado*, 493 F.3d at 524; *see supra* at Section II.A.

This Court should reverse, therefore, at a minimum because Hardwick's description of the requested medical monitoring does not sufficiently specify the relief sought.

III. THE CLASS DEFINITION MAKES THE CLASS UNCERTIFIABLE.

Whatever else is true, this action cannot go forward with the class defined as all "[i]ndividuals subject to the laws of Ohio, who have 0.05 parts per trillion (ppt) of PFOA (C-8) and at least 0.05 ppt of any other PFAS in their blood serum." Order, R.233, PageID#6663. The problems with that class definition only begin with the millions of individualized inquiries required to determine whether any given person is "subject to Ohio law." *See supra* at pp. 42–43.

Even more fundamentally, the definition would be impossible to implement and therefore class members could not be identified. Hardwick thus failed to carry his acknowledged "burden to adequately define the proposed class," Class-Cert.

Mot., R.164, PageID#1528, because the definition fails an "essential prerequisite of an action under Rule 23": "that there must be a 'class.'" 7A Fed. Prac. & Proc. Civ. § 1760 (4th ed., Westlaw Apr. 2022 update); *see also Tarrify Props.*, 37 F.4th at 1106 ("putative class members [must] be readily identifi[able] based on the class definition").

Testing obstacles. It is scientifically impossible to test for PFAS blood serum concentrations as low as this class's threshold: 0.05 parts per *trillion*. As Dr. Dallas Wait (an expert analytical chemist) explained—with no rebuttal—this concentration criterion is *2,000 times lower* than detection limits currently achievable even by commercial toxicological or forensics laboratories for any PFAS, much less all PFAS. Wait Rep., R.200-5, PageID#5349-50. Even if testing to the class threshold were scientifically possible, moreover, the process would be unmanageably daunting. It would require large blood draws for over 11 million people. *Id.*, PageID#5353. And given the size of the class and the rigorous cleaning required for low detection levels, it would take 100 labs about 16 years to complete the necessary testing. *See id.* Extrapolating from the costs incurred by Hardwick's counsel for the limited testing of Hardwick's blood (Hardwick Dep., R.200-6, PageID#5417-18), moreover, testing over 11 million class members could potentially cost billions of dollars.

Beyond that, there are serious questions about which PFAS would or could be tested for. There is some ambiguity and disagreement over what substances the

umbrella term "PFAS" includes. Reitman Rep., R.200-4, PageID#5314. And there are no accepted or validated methods of testing for the "vast majority" of PFAS compounds in blood serum. Wait Rep., R.200-5, PageID#5351. The CDC testing methods, which are generally in line with the capabilities of commercial laboratories, test for only 8 to 12 different PFAS (of the 5,000 Hardwick wants tested), and the most inclusive methods published in recent scientific literature tested for only 43. *Id.*, PageID#5351-52.

These testing obstacles make it impossible to identify the members of the class—"[i]ndividuals subject to the laws of Ohio, who have 0.05 parts per trillion (ppt) of PFOA (C-8) and at least 0.05 ppt of any other PFAS in their blood serum," Order, R.233, PageID#6663—which precludes class certification.

Ascertainability. Hardwick has tried to sidestep these arguments by asserting that "ascertainability" is not a requirement for a Rule 23(b)(2) class. But the problems here go far beyond the class definition not being "administratively feasible." *Young v. Nationwide Mut. Ins. Co.*, 693 F.3d 532, 538 (6th Cir. 2012). They go to whether potential class members, Defendants, and the Court could even determine who is actually in the non-opt-out class and thus bound by any judicial determinations—to whether there is a "class" at all.

In any event, "ascertainability" is implicit in Rule 23 generally, *see Tarrify Props.*, 37 F.4th at 1106, regardless of the particular subpart of Rule 23(b) under

which the plaintiff moves. To be sure, *Cole v. City of Memphis*, 839 F.3d 530 (6th Cir. 2016), declined to apply an ascertainability requirement to a (b)(2) class. But *Cole* was a civil-rights case seeking a *prohibitive* injunction against a police practice of clearing Beale Street in Memphis at a particular time of day. It was unnecessary for the Court to identify putative class members, because the City of Memphis would be required to stop the practice altogether, not merely as applied to certain individuals.

This case is of course different, not only in subject matter but in requested relief. *Cole*, 839 F.3d at 542 (explaining that the "focus in a (b)(2) class is more heavily placed on the nature of the remedy sought"). Hardwick seeks a *mandatory* "injunction" that would establish a potential individualized entitlement to medical monitoring only for people who satisfy the impossible-to-apply requirements of his putative class definition. To effectuate this "injunction," unlike the one in *Cole*, the Court would need to identify putative class members. *See, e.g.*, *League of Women Voters of N.C. v. N. Carolina*, 769 F.3d 224, 236 (4th Cir. 2014) (explaining differences between prohibitive and mandatory injunctions); *Stanley v. Univ. of S. Cal.*, 13 F.3d 1313, 1320 (9th Cir. 1994) (same). Knowing the identity of class members also is crucial to understanding who would be bound by the proposed Science Panel determinations. Yet Hardwick's proposed class definition makes that impossible.

In sum, Hardwick has failed to meet his burden of showing that the class definition is adequate or ascertainable, which requires that class certification be reversed.

CONCLUSION

The district court's order certifying a class action under Rule 23(b)(2) should be reversed and the case remanded with instructions that the case be dismissed for lack of jurisdiction. In the alternative, the Court should reverse the class-certification order and remand for further proceedings.

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CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitation of Fed R. App. P. 32(a)(7)(B) because it "contains no more than 13,000 words"—specifically, it contains 12,085 words (excluding the parts of the brief exempted by Fed. R. App. P. 32(f) and Sixth Circuit Rule 32(b)(1)), as counted using the word-count function on Microsoft Word 2016 software.

This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type-style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared in proportionally spaced typeface using Microsoft Word 2016, in Times New Roman style, 14-point font.

December 21, 2022

/s/ Theodore M. Grossman

Theodore M. Grossman

CERTIFICATE OF SERVICE

I hereby certify that on December 21, 2022, I electronically filed the original of this brief with the Clerk of the Court using the CM/ECF system. Notice of this filing will be sent to all attorneys of record by operation of the Court's electronic filing system.

/s/ Theodore M. Grossman

Theodore M. Grossman

ADDENDUM

DESIGNATION OF RELEVANT DISTRICT COURT DOCUMENTS

Pursuant to Sixth Circuit Rule 30(g)(1), Appellants hereby designate the following filings in the district court's record as potentially relevant to the disposition of this appeal:

Record Entry #	Description	Date	Page ID #
1	Complaint with Jury Demand	10/04/2018	1–33
67	Defendants' Joint Motion to Dismiss	02/14/2019	254–255
67-1	Memorandum in Support of Defendants' Joint Motion to Dismiss	02/14/2019	256–293
89	Stipulation between Plaintiff Kevin Hardwick and Defendant AGC Inc.	03/26/2019	448–450
90	Notice of Voluntary Dismissal	03/26/2019	451–452
91-1	Order requiring Status Report regarding Dyneon, L.L.C.	04/08/2019	455
92	Plaintiff Kevin Hardwick's Status Report Regarding Defendant Dyneon, L.L.C.	04/12/2019	456–458
94	Plaintiff's Memorandum in Opposition to Defendants' Motions to Dismiss	04/12/2019	498–559
95	Order granting Motion for Leave to File First Amended Complaint	04/15/2019	560
96	First Amended Complaint and Jury Demand (the operative complaint)	04/16/2019	561–594
105	Reply In Support of Defendants' Joint Motion to Dismiss	05/13/2019	613–663
125	Order regarding Oral Argument	08/26/2019	806
126	Motion to Dismiss Oral Argument Transcript	09/03/2019	807–834
128	Order denying Defendants' Motions to Dismiss	09/30/2019	835–869
136	Answer filed by Solvay Specialty Polymers, USA, LLC	12/02/2019	917–953
137	Answer filed by AGC Chemicals Americas, Inc.	12/02/2019	954–982

138	Answer filed by 3M Company	12/02/2019	983–1049
139	Answer filed by Daikin America, Inc.	12/02/2019	1050–1092
141	Answer filed by Arkema, Inc.	12/02/2019	1108–1166
142	Answer filed by Arkema France, S.A.	12/02/2019	1167–1225
143	Answer filed by E.I. du Pont de Nemours and Company	12/02/2019	1226–1307
144	Answer filed by the Chemours Company	12/02/2019	1308–1397
147	Rule 26(f) Report	02/19/2020	1405–1412
150	Order granting Motion to Apply Defendants' Motions to Dismiss to the Amended Complaint	03/02/2020	1419
156	Preliminary Pretrial Order	04/30/2020	1429–1430
157	Opinion and Order regarding Class Certification and Protective Order	06/16/2020	1432–1435
161	Protective Order	06/29/2020	1450–1475
164	Plaintiff's Motion for Class Certification	07/31/2020	1481–1548
164-1–164-5, 165, 165-1–165-6	Plaintiff's Exhibits in Support of Class Certification	07/31/2020	1549–4442
166	Opinion and Order denying Motion to Reconsider Denial of Motions to Dismiss for Lack of Personal Jurisdiction	08/03/2020	4443–4456
178	Answer filed by Archroma Management LLC	08/24/2020	4505–4539
187	Answer filed by Daikin Industries Ltd.	08/31/2020	4591–4632
200	Defendants' Joint Opposition to Plaintiff's Motion for Class Certification	12/14/2020	4739–4984
200-1	Expert Report of Dominik D. Alexander	12/14/2020	4985–5136
200-2	Expert Report of Barbara D. Beck	12/14/2020	5137–5244
200-3	Expert Report of Jessica Herzstein	12/14/2020	5245–5306

200-4	Expert Report of Maureen T.F. Reitman	12/14/2020	5307–5340
200-5	Expert Report of A. Dallas Wait	12/14/2020	5341–5398
200-6	Transcript of Plaintiff Kevin Hardwick's Deposition	12/14/2020	5399–5513
200-7–200-20	Defendants' Remaining Exhibits in Opposition to Class Certification	12/14/2020	5514–5624
201	Sealed Defendants' Joint Opposition to Plaintiff's Motion for Class Certification with sealed supporting exhibits	12/14/2020	n/a
203	Order denying Motion for Leave to Substitute Exhibit	12/29/2020	6263–6265
206	Opinion and Order denying Petition for Permission to Appeal	02/17/2021	6273–6285
209	Order granting Motion to Defer Personal Jurisdiction Discovery	02/24/2021	Notation Order
210	Plaintiff's Reply in Support of Motion for Class Certification	03/12/2021	6290–6369
214	Defendants' Notice of Supplemental Authority	05/07/2021	6376–6407
216	Plaintiff's Notice of Supplemental Authority	07/16/2021	6411–6439
217	Defendants' Motion for Leave to File Notice of Supplemental Authority regarding *TransUnion LLC v. Ramirez*, 141 S. Ct. 2190 (2021)	07/28/2021	6440–6508
218	Order granting Defendants' Motion for Leave to File Notice of Supplemental Authority	07/29/2021	6509
221	Plaintiff's Response in Opposition to Defendants' Notice of Supplemental Authority regarding *TransUnion LLC v. Ramirez*, 141 S. Ct. 2190 (2021)	08/17/2021	6514–6522
229	Plaintiff's Notice of Supplemental Authority regarding Class Certification	12/20/2021	6556–6558
230	Plaintiff's Notice of Supplemental Authority regarding Class Certification	12/30/2021	6568–6570

231	Defendants' Response to Plaintiff's Notice of Supplemental Authority regarding Class Certification (R. 230)	01/17/2022	6577–6581
232	Plaintiff's Notice of Supplemental Authority regarding Class Certification	02/28/2022	6657–6662
233	Opinion and Order granting in part and denying in part Plaintiff's Motion for Class Certification	03/07/2022	6663–6711
236	Order regarding possible expansion of the class	03/22/2022	6716
237	Order vacating the scheduling order because of Defendants' Rule 23(f) appeal	03/22/2022	6717
244, 244-1	Sixth Circuit order, opinion, and judgment granting Rule 23(f) review	09/09/2022	6730–6754
245	Notice of Appeal	09/09/2022	Notation Order