

## Syllabus

BOARD OF TRUSTEES OF THE LELAND STANFORD  
JUNIOR UNIVERSITY *v.* ROCHE MOLECULAR  
SYSTEMS, INC., ET AL.CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR  
THE FEDERAL CIRCUIT

No. 09–1159. Argued February 28, 2011—Decided June 6, 2011

In 1985, a small California research company called Cetus began to develop methods for quantifying blood-borne levels of human immunodeficiency virus (HIV), the virus that causes AIDS. A Nobel Prize winning technique developed at Cetus known as PCR was an integral part of these efforts.

In 1988, Cetus began to collaborate with scientists at Stanford University's Department of Infectious Diseases to test the efficacy of new AIDS drugs. Dr. Holodniy joined Stanford as a research fellow in the department around that time. When he did so, he signed an agreement stating that he "agree[d] to assign" to Stanford his "right, title and interest in" inventions resulting from his employment there. Holodniy's supervisor arranged for him to conduct research at Cetus to learn about PCR. As a condition of gaining access to Cetus, Holodniy was required to sign an agreement stating that he "will assign and do[es] hereby assign" to Cetus his "right, title, and interest in . . . the ideas, inventions and improvements" made "as a consequence of [his] access" to Cetus. Working with Cetus employees, Holodniy devised a PCR-based procedure for measuring the amount of HIV in a patient's blood. Upon returning to Stanford, he and other Stanford employees tested the procedure. Stanford secured three patents to the measurement process.

Roche Molecular Systems acquired Cetus's PCR-related assets. After conducting clinical trials on the HIV quantification method developed at Cetus, Roche commercialized the procedure. Today, its HIV test kits are used worldwide.

The University and Small Business Patent Procedures Act of 1980 (Bayh-Dole Act or Act) allocates rights in federally funded "subject invention[s]" between the Federal Government and federal contractors. 35 U.S.C. §§ 201(e), (c), 202(a). The Act defines "subject invention" as "any invention of the contractor conceived or first actually reduced to practice in the performance of work under a funding agreement," § 201(e), and provides that contractors may "elect to retain title to any subject invention," § 202(a). Because some of Stanford's research on

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the HIV measurement technique was funded by the National Institutes of Health (NIH), the Bayh-Dole Act applied. In accordance with the Act's requirements, Stanford notified NIH that it was electing to retain title to the invention and conferred on the Government a license to use the patented procedure.

Petitioner, the Board of Trustees of Stanford University, filed suit against respondents (Roche), claiming that their HIV test kits infringed Stanford's patents. Roche responded that Holodniy's agreement with Cetus gave it co-ownership of the procedure, and thus Stanford lacked standing to sue it for patent infringement. Stanford countered that Holodniy had no rights to assign because the University had superior rights under the Bayh-Dole Act. The District Court agreed with Stanford and held that under the Bayh-Dole Act, Holodniy had no rights to assign to Cetus. The Court of Appeals for the Federal Circuit disagreed, concluding that Holodniy's agreement with Cetus assigned his rights to Cetus, and thus to Roche. It also found that the Bayh-Dole Act did not automatically void an inventor's rights in federally funded inventions. Thus, the Act did not extinguish Roche's ownership interest in the invention, and Stanford was deprived of standing.

*Held:* The Bayh-Dole Act does not automatically vest title to federally funded inventions in federal contractors or authorize contractors to unilaterally take title to such inventions. Pp. 784–793.

(a) Since 1790, patent law has operated on the premise that rights in an invention belong to the inventor. See, e.g., *Gayler v. Wilder*, 10 How. 477, 493. In most cases, a patent may be issued only to an applying inventor, or—because an inventor's interest in his invention is assignable in law by an instrument in writing—an inventor's assignee. See *United States v. Dubilier Condenser Corp.*, 289 U. S. 178, 187. Absent an agreement to the contrary, an employer does not have rights in an invention “which is the original conception of the employee alone,” *id.*, at 189; an inventor must expressly grant those rights to his employer, see *id.*, at 187. Pp. 784–786.

(b) Stanford and *amicus* United States contend that, when an invention is conceived or first reduced to practice with the support of federal funds, the Bayh-Dole Act vests title to those inventions in the inventor's employer—the federal contractor. Congress has in the past divested inventors of their rights in inventions by providing unambiguously that inventions created pursuant to certain specified federal contracts become the Government's property. Such unambiguous language is notably absent from the Bayh-Dole Act. Instead, the Act provides that contractors may “elect to retain title to any subject invention,” §202(a), defining a “subject invention” as “any invention of the contractor con-

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ceived or first actually reduced to practice in the performance of work under a funding agreement,” § 201(e).

Stanford contends that “invention of the contractor” means all inventions that a contractor’s employees make with the aid of federal funds. That reading assumes that Congress subtly set aside two centuries of patent law in a statutory definition. This Court has rejected the idea that mere employment is sufficient to vest title to an employee’s invention in the employer. Stanford’s reading also renders the phrase “of the contractor” superfluous since the definition already covers inventions made under a funding agreement. Construing the phrase to refer instead to a particular category of inventions conceived or reduced to practice under a funding agreement—inventions “of the contractor,” that is, those owned by or belonging to the contractor—makes the phrase meaningful in the statutory definition. And “invention owned by the contractor” or “invention belonging to the contractor” are natural readings of the phrase “invention of the contractor.”

Section 202(a), which states that contractors may “elect to retain title,” confirms that the Act does not *vest* title. Stanford reaches the opposite conclusion, but only because it reads “retain” to mean “acquire” and “receive.” That is certainly not the common meaning of “retain,” which is “to hold or continue to hold in possession or use.” You cannot retain something unless you already have it. And § 210(a)—which provides that the Act “take[s] precedence over any other Act which would require a disposition of rights in subject inventions . . . that is inconsistent with” the Act—does not displace the basic principle that an inventor owns the rights to his invention. Only when an invention belongs to the contractor does the Bayh-Dole Act come into play. The Act’s disposition of rights does nothing more than clarify the order of priority of rights between the Federal Government and a federal contractor in a federally funded invention that already belongs to the contractor.

The Act’s isolated provisions dealing with inventors’ rights in subject inventions are consistent with the Court’s construction of the Act. See § 202(d). That construction is also bolstered by the Act’s limited procedural protections, which expressly give contractors the right to challenge a Government-imposed impediment to retaining title to a subject invention, § 202(b)(3), but do not provide similar protection for inventor and third-party rights.

Stanford’s contrary construction would permit title to an employee’s inventions to vest in the University even if the invention was conceived before the inventor became an employee, so long as the invention’s reduction to practice was supported by federal funding. It also suggests that the school would obtain title were even one dollar of federal funding applied toward an invention’s conception or reduction to practice. It would be noteworthy enough for Congress to supplant one of the funda-

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mental precepts of patent law and deprive inventors of rights in their own inventions. To do so under such unusual terms would be truly surprising. Had Congress intended such a sea change in intellectual property rights it would have said so clearly—not obliquely through an ambiguous definition of “subject invention” and an idiosyncratic use of the word “retain.”

The Court’s construction of the Act is also reflected in the common practice of contractors, who generally obtain assignments from their employees, and of agencies that fund federal contractors, who typically expect those contractors to obtain assignments. With effective assignments, federally funded inventions become “subject inventions” and the Act as a practical matter works pretty much the way Stanford says it should. The only significant difference is that it does so without violence to the basic patent law principle that inventors own their inventions. Pp. 786–793.

583 F. 3d 832, affirmed.

ROBERTS, C. J., delivered the opinion of the Court, in which SCALIA, KENNEDY, THOMAS, ALITO, SOTOMAYOR, and KAGAN, JJ., joined. SOTOMAYOR, J., filed a concurring opinion, *post*, p. 794. BREYER, J., filed a dissenting opinion, in which GINSBURG, J., joined, *post*, p. 794.

*Donald B. Ayer* argued the cause for petitioner. With him on the briefs were *Lawrence D. Rosenberg, Christian G. Vergonis, Jennifer L. Swize, Pamela S. Karlan, Ricardo Rodriguez, Stephen C. Neal, Lori R. E. Ploeger, Michelle S. Rhyu, Benjamin G. Damstedt, Debra L. Zumwalt, and Patrick H. Dunkley*.

*Deputy Solicitor General Stewart* argued the cause for the United States as *amicus curiae* urging reversal. With him on the brief were *Acting Solicitor General Katyal, Assistant Attorney General West, Deputy Assistant Attorney General Brinkmann, Nicole A. Saharsky, and Teal Luthy Miller*.

*Mark C. Fleming* argued the cause for respondents. With him on the brief were *Adrian M. Pruetz, Brian C. Cannon, and Paul R. Q. Wolfson*.\*

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\*Briefs of *amici curiae* urging reversal were filed for BayhDole25, Inc., by *Douglas D. Salyers, Jeffrey C. Morgan, and Susan Finston*; for the National Venture Capital Association by *Sri Srinivasan*; and for Alexan-

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CHIEF JUSTICE ROBERTS delivered the opinion of the Court.

Since 1790, the patent law has operated on the premise that rights in an invention belong to the inventor. The question here is whether the University and Small Business Patent Procedures Act of 1980—commonly referred to as the Bayh-Dole Act—displaces that norm and automatically vests title to federally funded inventions in federal contractors. We hold that it does not.

I

A

In 1985, a small California research company called Cetus began to develop methods for quantifying blood-borne levels of human immunodeficiency virus (HIV), the virus that causes AIDS. A Nobel Prize winning technique developed at Cetus—polymerase chain reaction, or PCR—was an integral part of these efforts. PCR allows billions of copies of DNA sequences to be made from a small initial blood sample.

In 1988, Cetus began to collaborate with scientists at Stanford University's Department of Infectious Diseases to test

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der M. Shukh by *Constantine John Gekas*. Briefs of *amici curiae* urging vacation were filed for the Association of American Universities et al. by *Douglas Hallward-Driemeier* and *James R. Myers*; and for John P. Sutton by *Mr. Sutton, pro se*.

Briefs of *amici curiae* urging affirmance were filed for the American Association of University Professors et al. by *David P. Swenson*; for the Biotechnology Industry Organization by *Carter G. Phillips*, *Jeffrey P. Kushan*, and *Rachel H. Townsend*; for Intel Corp. et al. by *Theodore B. Olson*, *Matthew D. McGill*, *William G. Jenks*, *Tina Chappell*, *Philip S. Johnson*, *Robert A. Armitage*, and *Alan Hammond*; and for the Pharmaceutical Research and Manufacturers of America by *Robert A. Long, Jr.*, and *Alan Pemberton*.

Briefs of *amici curiae* were filed for the American Intellectual Property Law Association by *David W. Hill*; for the Intellectual Property Owners Association by *George L. Graff*, *Victoria A. Cundiff*, *Douglas K. Norman*, and *Kevin H. Rhodes*; and for Birch Bayh by *William D. Coston*, *John F. Cooney*, and *Michael A. Gollin*.

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the efficacy of new AIDS drugs. Dr. Mark Holodniy joined Stanford as a research fellow in the department around that time. When he did so, he signed a Copyright and Patent Agreement (CPA) stating that he “agree[d] to assign” to Stanford his “right, title and interest in” inventions resulting from his employment at the University. App. to Pet. for Cert. 118a–119a.

At Stanford Holodniy undertook to develop an improved method for quantifying HIV levels in patient blood samples, using PCR. Because Holodniy was largely unfamiliar with PCR, his supervisor arranged for him to conduct research at Cetus. As a condition of gaining access to Cetus, Holodniy signed a Visitor’s Confidentiality Agreement (VCA). That agreement stated that Holodniy “will assign and do[es] hereby assign” to Cetus his “right, title, and interest in each of the ideas, inventions and improvements” made “as a consequence of [his] access” to Cetus. *Id.*, at 122a–124a.

For the next nine months, Holodniy conducted research at Cetus. Working with Cetus employees, Holodniy devised a PCR-based procedure for calculating the amount of HIV in a patient’s blood. That technique allowed doctors to determine whether a patient was benefiting from HIV therapy.

Holodniy then returned to Stanford where he and other University employees tested the HIV measurement technique. Over the next few years, Stanford obtained written assignments of rights from the Stanford employees involved in refinement of the technique, including Holodniy, and filed several patent applications related to the procedure. Stanford secured three patents to the HIV measurement process.

In 1991, Roche Molecular Systems, a company that specializes in diagnostic blood screening, acquired Cetus’s PCR-related assets, including all rights Cetus had obtained through agreements like the VCA signed by Holodniy. After conducting clinical trials on the HIV quantification method developed at Cetus, Roche commercialized the proce-

dure. Today, Roche's HIV test "kits are used in hospitals and AIDS clinics worldwide." Brief for Respondents 10–11.

## B

In 1980, Congress passed the Bayh-Dole Act to "promote the utilization of inventions arising from federally supported research," "promote collaboration between commercial concerns and nonprofit organizations," and "ensure that the Government obtains sufficient rights in federally supported inventions." 35 U.S.C. § 200. To achieve these aims, the Act allocates rights in federally funded "subject invention[s]" between the Federal Government and federal contractors ("any person, small business firm, or nonprofit organization that is a party to a funding agreement"). §§ 201(e), (c), 202(a). The Act defines "subject invention" as "any invention of the contractor conceived or first actually reduced to practice in the performance of work under a funding agreement." § 201(e).

The Bayh-Dole Act provides that contractors may "elect to retain title to any subject invention." § 202(a). To be able to retain title, a contractor must fulfill a number of obligations imposed by the statute. The contractor must "disclose each subject invention to the [relevant] Federal agency within a reasonable time"; it must "make a written election within two years after disclosure" stating that the contractor opts to retain title to the invention; and the contractor must "file a patent application prior to any statutory bar date." §§ 202(c)(1)–(3). The "Federal Government may receive title" to a subject invention if a contractor fails to comply with any of these obligations. *Ibid.*

The Government has several rights in federally funded subject inventions under the Bayh-Dole Act. The agency that granted the federal funds receives from the contractor "a nonexclusive, nontransferrable, irrevocable, paid-up license to practice . . . [the] subject invention." § 202(c)(4). The agency also possesses "[m]arch-in rights," which permit the agency to grant a license to a responsible third party



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under certain circumstances, such as when the contractor fails to take “effective steps to achieve practical application” of the invention. § 203. The Act further provides that when the contractor does not elect to retain title to a subject invention, the Government “may consider and after consultation with the contractor grant requests for retention of rights by the inventor.” § 202(d).

Some of Stanford’s research related to the HIV measurement technique was funded by the National Institutes of Health (NIH), thereby subjecting the invention to the Bayh-Dole Act. Accordingly, Stanford disclosed the invention, conferred on the Government a nonexclusive, nontransferable, paid-up license to use the patented procedure, and formally notified NIH that it elected to retain title to the invention.

## C

In 2005, the Board of Trustees of Stanford University filed suit against Roche Molecular Systems, Inc., Roche Diagnostics Corporation, and Roche Diagnostics Operations, Inc. (collectively Roche), contending that Roche’s HIV test kits infringed Stanford’s patents. As relevant here, Roche responded by asserting that it was a co-owner of the HIV quantification procedure, based on Holodniy’s assignment of his rights in the VCA. As a result, Roche argued, Stanford lacked standing to sue it for patent infringement. 487 F. Supp. 2d 1099, 1111, 1115 (ND Cal. 2007). Stanford claimed that Holodniy had no rights to assign because the University’s HIV research was federally funded, giving the school superior rights in the invention under the Bayh-Dole Act. *Ibid.*<sup>1</sup>

The District Court held that the “VCA effectively assigned any rights that Holodniy had in the patented inven-

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<sup>1</sup> Roche submitted a host of other claims to the District Court, including that it had “shop rights” to the patents and was entitled to a license to use the patents. See 583 F. 3d 832, 838 (CA Fed. 2009). None of those claims is now before us; we deal only with Roche’s claim to co-ownership to rebut Stanford’s standing to bring an infringement action.



tion to Cetus,” and thus to Roche. *Id.*, at 1117. But because of the operation of the Bayh-Dole Act, “Holodniy had no interest to assign.” *Id.*, at 1117, 1119. The court concluded that the Bayh-Dole Act “provides that the individual inventor may obtain title” to a federally funded invention “only after the government and the contracting party have declined to do so.” *Id.*, at 1118.

The Court of Appeals for the Federal Circuit disagreed. First, the court concluded that Holodniy’s initial agreement with Stanford in the CPA constituted a mere promise to assign rights in the future, unlike Holodniy’s agreement with Cetus in the VCA, which itself assigned Holodniy’s rights in the invention to Cetus. See 583 F. 3d 832, 841–842 (2009). Therefore, as a matter of contract law, Cetus obtained Holodniy’s rights in the HIV quantification technique through the VCA.<sup>2</sup> Next, the court explained that the Bayh-Dole Act “does not automatically void ab initio the inventors’ rights in government-funded inventions” and that the “statutory scheme did not automatically void the patent rights that Cetus received from Holodniy.” *Id.*, at 844–845. The court held that “Roche possesse[d] an ownership interest in the patents-in-suit” that was not extinguished by the Bayh-Dole Act, “depriv[ing] Stanford of standing.” *Id.*, at 836–837. The Court of Appeals then remanded the case with instructions to dismiss Stanford’s infringement claim. *Id.*, at 849.

We granted certiorari. 562 U. S. 1001 (2010).

## II

### A

Congress has the authority “[t]o promote the Progress of Science and useful Arts, by securing . . . to Authors and

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<sup>2</sup> Because the Federal Circuit’s interpretation of the relevant assignment agreements is not an issue on which we granted certiorari, we have no occasion to pass on the validity of the lower court’s construction of those agreements.

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Inventors the exclusive Right to their respective Writings and Discoveries.” U. S. Const., Art. I, § 8, cl. 8. The First Congress put that power to use by enacting the Patent Act of 1790. That Act provided “[t]hat upon the petition of any person or persons . . . setting forth, that he, she, or they, hath or have invented or discovered” an invention, a patent could be granted to “such petitioner or petitioners” or “their heirs, administrators or assigns.” Act of Apr. 10, 1790, § 1, 1 Stat. 109–110. Under that law, the first patent was granted in 1790 to Samuel Hopkins, who had devised an improved method for making potash, America’s first industrial chemical. U. S. Patent No. X1 (issued July 31, 1790).<sup>3</sup>

Although much in intellectual property law has changed in the 220 years since the first Patent Act, the basic idea that inventors have the right to patent their inventions has not. Under the law in its current form, “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter . . . may obtain a patent therefor.” 35 U. S. C. § 101. The inventor must attest that “he believes himself to be the original and first inventor of the [invention] for which he solicits a patent.” § 115. In most cases, a patent may be issued only to an applying inventor, or—because an inventor’s interest in his invention is “assignable in law by an instrument in writing”—an inventor’s assignee. §§ 151, 152, 261.

Our precedents confirm the general rule that rights in an invention belong to the inventor. See, e. g., *Gayler v. Wilder*, 10 How. 477, 493 (1851) (“the discoverer of a new and useful improvement is vested by law with an inchoate right to its exclusive use, which he may perfect and make absolute by proceeding in the manner which the law requires”); *Solo-*

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<sup>3</sup>The patent was signed by President George Washington, Secretary of State Thomas Jefferson, and Attorney General Edmund Randolph. See Maxey, Samuel Hopkins, The Holder of the First U. S. Patent: A Study of Failure, 122 Pa. Magazine of Hist. and Biography 3, 6 (1998).

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*mons v. United States*, 137 U.S. 342, 346 (1890) (“whatever invention [an inventor] may thus conceive and perfect is his individual property”); *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 188 (1933) (an inventor owns “the product of [his] original thought”). The treatises are to the same effect. See, e.g., 8 D. Chisum, Patents §22.01, p. 22–2 (2011) (“The presumptive owner of the property right in a patentable invention is the single human inventor”).

It is equally well established that an inventor can assign his rights in an invention to a third party. See *Dubilier Condenser Corp.*, *supra*, at 187 (“A patent is property and title to it can pass only by assignment”); 8 Chisum, *supra*, §22.01, at 22–2 (“The inventor . . . [may] transfer ownership interests by written assignment to anyone”). Thus, although others may acquire an interest in an invention, any such interest—as a general rule—must trace back to the inventor.

In accordance with these principles, we have recognized that unless there is an agreement to the contrary, an employer does not have rights in an invention “which is the original conception of the employee alone.” *Dubilier Condenser Corp.*, 289 U.S., at 189. Such an invention “remains the property of him who conceived it.” *Ibid.* In most circumstances, an inventor must expressly grant his rights in an invention to his employer if the employer is to obtain those rights. See *id.*, at 187 (“The respective rights and obligations of employer and employee, touching an invention conceived by the latter, spring from the contract of employment”).

B

Stanford and the United States as *amicus curiae* contend that the Bayh-Dole Act reorders the normal priority of rights in an invention when the invention is conceived or first reduced to practice with the support of federal funds. In their view, the Act moves inventors from the front of the line to the back by vesting title to federally funded inventions in

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the inventor’s employer—the federal contractor. See Brief for Petitioner 26–27; Brief for United States as *Amicus Curiae* 6.

Congress has in the past divested inventors of their rights in inventions by providing unambiguously that inventions created pursuant to specified federal contracts become the property of the United States. For example, with respect to certain contracts dealing with nuclear material and atomic energy, Congress provided that title to such inventions “shall be vested in, and be the property of, the [Atomic Energy] Commission.” 42 U. S. C. §2182. Congress has also enacted laws requiring that title to certain inventions made pursuant to contracts with the National Aeronautics and Space Administration “shall be the exclusive property of the United States,” Pub. L. 111–314, §3, 124 Stat. 3339, 51 U. S. C. §20135(b)(1), and that title to certain inventions under contracts with the Department of Energy “shall vest in the United States,” 42 U. S. C. §5908.

Such language is notably absent from the Bayh-Dole Act. Nowhere in the Act is title expressly vested in contractors or anyone else; nowhere in the Act are inventors expressly deprived of their interest in federally funded inventions. Instead, the Act provides that contractors may “elect to retain title to any subject invention.” 35 U. S. C. §202(a). A “subject invention” is defined as “any invention of the contractor conceived or first actually reduced to practice in the performance of work under a funding agreement.” §201(e).

Stanford asserts that the phrase “invention of the contractor” in this provision “is naturally read to include all inventions made by the contractor’s employees with the aid of federal funding.” Brief for Petitioner 32 (footnote omitted). That reading assumes that Congress subtly set aside two centuries of patent law in a statutory definition. It also renders the phrase “of the contractor” superfluous. If the phrase “of the contractor” were deleted from the definition of “subject invention,” the definition would cover “any inven-

tion . . . conceived or first actually reduced to practice in the performance of work under a funding agreement.” Reading “of the contractor” to mean “all inventions made by the contractor’s employees with the aid of federal funding,” as Stanford would, adds nothing that is not already in the definition, since the definition already covers inventions made under the funding agreement. That is contrary to our general “reluctan[ce] to treat statutory terms as surplusage.” *Duncan v. Walker*, 533 U. S. 167, 174 (2001) (internal quotation marks omitted).

Construing the phrase to refer instead to a particular category of inventions conceived or reduced to practice under a funding agreement—inventions “of the contractor,” that is, those owned by or belonging to the contractor—makes the phrase meaningful in the statutory definition. And “invention owned by the contractor” or “invention belonging to the contractor” are natural readings of the phrase “invention of the contractor.” As we have explained, “[t]he use of the word ‘of’ denotes ownership.” *Poe v. Seaborn*, 282 U. S. 101, 109 (1930); see *Flores-Figueroa v. United States*, 556 U. S. 646, 647, 657 (2009) (treating the phrase “identification [papers] of another person” as meaning such items belonging to another person (internal quotation marks omitted)); *Ellis v. United States*, 206 U. S. 246, 259 (1907) (interpreting the phrase “works of the United States” to mean “works . . . belonging to the United States” (internal quotation marks omitted)).

That reading follows from a common definition of the word “of.” See Webster’s Third New International Dictionary 1565 (2002) (“of” can be “used as a function word indicating a possessive relationship”); New Oxford American Dictionary 1180 (2d ed. 2005) (defining “of” as “indicating an association between two entities, typically one of belonging”); Webster’s New Twentieth Century Dictionary 1241 (2d ed. 1979) (defining “of” as “belonging to”).

Stanford’s reading of the phrase “invention of the contractor” to mean “all inventions made by the contractor’s em-

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ployees” is plausible enough in the abstract; it is often the case that whatever an employee produces in the course of his employment belongs to his employer. No one would claim that an autoworker who builds a car while working in a factory owns that car. But, as noted, patent law has always been different: We have rejected the idea that mere employment is sufficient to vest title to an employee’s invention in the employer. Against this background, a contractor’s invention—an “invention of the contractor”—does not automatically include inventions made by the contractor’s employees.<sup>4</sup>

The Bayh-Dole Act’s provision stating that contractors may “elect to *retain* title” confirms that the Act does not *vest* title. 35 U. S. C. § 202(a) (emphasis added). Stanford reaches the opposite conclusion, but only because it reads “retain” to mean “acquire” and “receive.” Brief for Petitioner 36 (internal quotation marks omitted). That is certainly not the common meaning of “retain.” “[R]etain” means “to hold or continue to hold in possession or use.” Webster’s Third, *supra*, at 1938; see Webster’s New Collegiate Dictionary 980 (1980) (“to keep in possession or use”); American Heritage Dictionary 1109 (1969) (“[t]o keep or hold in one’s possession”). You cannot retain something unless you already have it. See *Alaska v. United States*, 545 U. S. 75, 104 (2005) (interpreting the phrase “‘the United States shall retain title to all property’” to mean that “[t]he United States . . . retained title to *its* property located within Alas-

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<sup>4</sup>The dissent suggests that “we could interpret the Bayh-Dole Act as ordinarily assuming, and thereby ordinarily requiring, an assignment of patent rights by the federally funded employee to the federally funded employer.” *Post*, at 801 (opinion of BREYER, J.). That suggestion is based in large part on Executive Order No. 10096, which “governs Federal Government employee-to-employer patent right assignments.” *Post*, at 802. Lest there be any doubt, employees of nonfederal entities that have federal funding contracts—like Holodniy—are *not* federal employees. And there is no equivalent Executive Order governing invention rights with respect to federally funded research; that issue is of course addressed by the Bayh-Dole Act.

ka's borders" (emphasis added)). The Bayh-Dole Act does not confer title to federally funded inventions on contractors or authorize contractors to unilaterally take title to those inventions; it simply assures contractors that they may keep title to whatever it is they already have. Such a provision makes sense in a statute specifying the respective rights and responsibilities of federal contractors and the Government.

The Bayh-Dole Act states that it "take[s] precedence over any other Act which would require a disposition of rights in subject inventions . . . that is inconsistent with" the Act. 35 U. S. C. §210(a). The United States as *amicus curiae* argues that this provision operates to displace the basic principle, codified in the Patent Act, that an inventor owns the rights to his invention. See Brief for United States 21. But because the Bayh-Dole Act, including §210(a), applies only to "subject inventions"—"invention[s] of the contractor"—it does not displace an inventor's antecedent title to his invention. Only when an invention belongs to the contractor does the Bayh-Dole Act come into play. The Act's disposition of rights—like much of the rest of the Bayh-Dole Act—serves to clarify the order of priority of rights between the Federal Government and a federal contractor in a federally funded invention that already belongs to the contractor. Nothing more.<sup>5</sup>

The isolated provisions of the Bayh-Dole Act dealing with inventors' rights in subject inventions are consistent with our construction of the Act. Under the Act, a federal agency may "grant requests for retention of rights by the

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<sup>5</sup> Far from superseding the Patent Act in such a backhanded way, it is clear that §210(a)'s concern is far narrower. That provision specifies 21 different statutory provisions that the Bayh-Dole Act "take[s] precedence over," the vast majority of which deal with the division of ownership in certain inventions between a contractor and the Government. 35 U. S. C. §§210(a)(1)–(21); see, *e. g.*, §§210(a)(19)–(20) (the Bayh-Dole Act takes precedence over "section 6(b) of the Solar Photovoltaic Energy Research Development and Demonstration Act" and "section 12 of the Native Latex Commercialization and Economic Development Act").



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inventor” “[i]f a contractor does not elect to retain title to a subject invention.” §202(d). If an employee inventor never had title to his invention because title vested in the contractor by operation of law—as Stanford submits—it would be odd to allow the Government to grant “requests for retention of rights by the inventor.” By using the word “retention,” §202(d) assumes that the inventor had rights in the subject invention at some point, undermining the notion that the Act automatically vests title to federally funded inventions in federal contractors.<sup>6</sup>

The limited scope of the Act’s procedural protections also bolsters our conclusion. The Bayh-Dole Act expressly confers on contractors the right to challenge a Government-imposed impediment to retaining title to a subject invention. §202(b)(3) (2006 ed., Supp. III). As Roche correctly notes, however, “the Act contains not a single procedural protection for third parties that have neither sought nor received federal funds,” such as cooperating private research institutions. Brief for Respondents 29. Nor does the Bayh-Dole Act allow inventors employed by federal contractors to contest their employer’s claim to a subject invention. The Act, for example, does not expressly permit an interested third party or an inventor to challenge a claim that a particular invention was supported by federal funding. In a world in which there is frequent collaboration between private entities, inventors, and federal contractors, see Brief for Phar-

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<sup>6</sup> Stanford contends that it cannot be the case “that the contractor can only ‘retain title’ to an invention that it already owns, while an inventor may be considered for ‘retention’ of title only when he has assigned title away.” Reply Brief for Petitioner 8. That argument has some force. But there may be situations where an inventor, by the terms of an assignment, has subsidiary rights in an invention to which a contractor has title, as §202(d) suggests. Compare §202(d) (“retention of *rights*”) with §202(a) (“retain *title*”) (emphasis added). And at the end of the day, it is Stanford’s contention that “retain” must be “read as a synonym for ‘acquire’ or ‘receive’” that dooms its argument on this point. Brief for Petitioner 37.

maceutical Research and Manufacturers of America as *Amicus Curiae* 22–23, that absence would be deeply troubling. But the lack of procedures protecting inventor and third-party rights makes perfect sense if the Act applies only when a federal contractor has already acquired title to an inventor’s interest. In that case, there is no need to protect inventor or third-party rights, because the only rights at issue are those of the contractor and the Government.

The Bayh-Dole Act applies to subject inventions “conceived *or* first actually reduced to practice in the performance of work” “funded in whole *or in part* by the Federal Government.” 35 U.S.C. §§201(e), 201(b) (2006 ed.) (emphasis added). Under Stanford’s construction of the Act, title to one of its employee’s inventions could vest in the University even if the invention was conceived before the inventor became a University employee, so long as the invention’s reduction to practice was supported by federal funding. What is more, Stanford’s reading suggests that the school would obtain title to one of its employee’s inventions even if only one dollar of federal funding was applied toward the invention’s conception or reduction to practice.

It would be noteworthy enough for Congress to supplant one of the fundamental precepts of patent law and deprive inventors of rights in their own inventions. To do so under such unusual terms would be truly surprising. We are confident that if Congress had intended such a sea change in intellectual property rights it would have said so clearly—not obliquely through an ambiguous definition of “subject invention” and an idiosyncratic use of the word “retain.” Cf. *Whitman v. American Trucking Assns., Inc.*, 531 U.S. 457, 468 (2001) (“Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions”).

Though unnecessary to our conclusion, it is worth noting that our construction of the Bayh-Dole Act is reflected in

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the common practice among parties operating under the Act. Contractors generally institute policies to obtain assignments from their employees. See Brief for Respondents 34; Brief for Pharmaceutical Research and Manufacturers of America as *Amicus Curiae* 13–18. Agencies that grant funds to federal contractors typically expect those contractors to obtain assignments. So it is with NIH, the agency that granted the federal funds at issue in this case. In guidance documents made available to contractors, NIH has made clear that “[b]y law, an inventor has initial ownership of an invention” and that contractors should therefore “have in place employee agreements requiring an inventor to ‘assign’ or give ownership of an invention to the organization upon acceptance of Federal funds.” NIH Policies, Procedures, and Forms, A “20–20” View of Invention Reporting to the National Institutes of Health (Sept. 22, 1995). Such guidance would be unnecessary if Stanford’s reading of the statute were correct.

Stanford contends that reading the Bayh-Dole Act as not vesting title to federally funded inventions in federal contractors “fundamentally undermin[es]” the Act’s framework and severely threatens its continued “successful application.” Brief for Petitioner 45. We do not agree. As just noted, universities typically enter into agreements with their employees requiring the assignment to the university of rights in inventions. With an effective assignment, those inventions—if federally funded—become “subject inventions” under the Act, and the statute as a practical matter works pretty much the way Stanford says it should. The only significant difference is that it does so without violence to the basic principle of patent law that inventors own their inventions.

The judgment of the Court of Appeals for the Federal Circuit is affirmed.

*It is so ordered.*

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JUSTICE SOTOMAYOR, concurring.

I agree with the Court's resolution of this case and with its reasoning. I write separately to note that I share JUSTICE BREYER's concerns as to the principles adopted by the Court of Appeals for the Federal Circuit in *FilmTec Corp. v. Allied-Signal Inc.*, 939 F.2d 1568 (1991), and the application of those principles to agreements that implicate the Bayh-Dole Act. See *post*, at 799–803 (dissenting opinion). Because Stanford failed to challenge the decision below on these grounds, I agree that the appropriate disposition is to affirm. Like the dissent, however, I understand the majority opinion to permit consideration of these arguments in a future case. See *ante*, at 784, n. 2.

JUSTICE BREYER, with whom JUSTICE GINSBURG joins, dissenting.

The question presented in this case is:

“Whether a federal contractor university's statutory right under the Bayh-Dole Act, 35 U. S. C. §§200–212, in inventions arising from federally funded research can be terminated unilaterally by an individual inventor through a separate agreement purporting to assign the inventor's rights to a third party.” Brief for Petitioner i.

In my view, the answer to this question is likely no. But because that answer turns on matters that have not been fully briefed (and are not resolved by the opinion of the Court), I would return this case to the Federal Circuit for further argument.

## I

The Bayh-Dole Act creates a three-tier system for patent rights ownership applicable to federally funded research conducted by nonprofit organizations, such as universities, and small businesses. It sets forth conditions that mean (1) the funded firm; (2) failing that, the United States Government;

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and (3) failing that, the employee who made the invention, will likely obtain (or retain) any resulting patent rights (normally in that just-listed order). 35 U. S. C. §§ 202–203. The statute applies to “subject invention[s]” defined as “any *invention of the contractor* conceived or first actually reduced to practice in the performance of work under a funding agreement.” § 201(e) (emphasis added). Since the “contractor” (*e. g.*, a university or small business) is unlikely to “conceiv[e]” of an idea or “reduc[e]” it “to practice” *other than* through its employees, the term “invention of the contractor” must refer to the work and ideas of those employees. We all agree that the term covers those employee inventions that the employee properly assigns to the contractor, *i. e.*, his or her employer. But does the term “subject invention” also include inventions that the employee fails to assign properly?

## II

Congress enacted this statute against a background norm that often, but not always, denies individual inventors patent rights growing out of research for which the public has already paid. This legal norm reflects the fact that patents themselves have both benefits and costs. Patents, for example, help to elicit useful inventions and research and to ensure public disclosure of technological advances. See, *e. g.*, *Mazer v. Stein*, 347 U. S. 201, 219 (1954); *Bilski v. Kappos*, 561 U. S. 593, 601 (2010); *id.*, at 622 (Stevens, J., concurring in judgment). But patents sometimes mean unnecessarily high prices or restricted dissemination; and they sometimes discourage further innovation and competition by requiring costly searches for earlier, related patents or by tying up ideas, which, were they free, would more effectively spur research and development. See, *e. g.*, *Laboratory Corp. of America Holdings v. Metabolite Laboratories, Inc.*, 548 U. S. 124, 128 (2006) (BREYER, J., dissenting from dismissal of certiorari as improvidently granted); *Heller & Eisenberg*,

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Can Patents Deter Innovation? The Anticommons in Bio-medical Research, 280 Science 698 (1998).

Thus, Thomas Jefferson wrote of “the difficulty of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.” Letter to Isaac McPherson (Aug. 13, 1813), in 6 Writings of Thomas Jefferson 181 (H. Washington ed. 1854). And James Madison favored the patent monopoly because it amounted to “compensation for” a community “benefit.” Monopolies. Perpetuities. Corporations. Ecclesiastical Endowments., in J. Madison, Writings 756 (J. Rakove ed. 1999).

The importance of ensuring this community “benefit” is reflected in legal rules that may deny or limit the award of patent rights where the public has already paid to produce an invention, lest the public bear the potential costs of patent protection where there is no offsetting need for such protection to elicit that invention. Why should the public have to pay twice for the same invention?

Legal rules of this kind include an Executive Order that ordinarily gives to the Government “the entire right, title and interest” to inventions made by Government employees who “conduct or perform research, development work, or both.” 37 CFR § 501.6 (2010) (codifying, as amended, Exec. Order No. 10096, 3 CFR 292 (1949–1953 Comp.)). See also *Heinemann v. United States*, 796 F. 2d 451, 455–456 (CA Fed. 1986) (holding Executive Order constitutional and finding “no ‘taking’ because the invention was not the property of Heinemann”). They also include statutes, which, in specific research areas, give the Government title to inventions made pursuant to Government contracts. See Atomic Energy Act of 1954, § 152, 68 Stat. 944 (codified as amended at 42 U. S. C. § 2182); National Aeronautics and Space Act of 1958, § 305, 72 Stat. 435 (codified at 42 U. S. C. § 2457), repealed by § 6, 124 Stat. 3444; Federal Nonnuclear Energy Research and Development Act of 1974, § 9, 88 Stat. 1887 (codified as amended at 42 U. S. C. § 5908(a)). And they have included

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Government regulations, established prior to the Bayh-Dole Act's enactment, that work in roughly similar ways. See, e. g., 45 CFR § 650.4(b) (1977) (National Science Foundation regulations providing that Foundation would “determine the disposition of the invention [made under the grant] and title to and rights under any patent application”); §§ 8.1(a), 8.2(d) (Department of Health, Education, and Welfare regulations providing that inventions made under Department grants “shall be subject to determination” by the agency and that the Department may “require that all domestic rights in the invention shall be assigned to the United States”).

These legal rules provide the basic background against which Congress passed the Bayh-Dole Act. And the Act's provisions reflect a related effort to ensure that rights to inventions arising out of research for which the public has paid are distributed and used in ways that further specific important public interests. I agree with the majority that the Act does not simply take the individual inventors' rights and grant them to the Government. Rather, it assumes that the federal funds' recipient, say, a university or small business, will possess those rights. The Act leaves those rights in the hands of that recipient, not because it seeks to make the public pay twice for the same invention, but for a special public policy reason. In doing so, it seeks to encourage those institutions to *commercialize* inventions that otherwise might not realize their potentially beneficial public use. 35 U. S. C. § 200. The Act helps ensure that commercialization (while “promot[ing] free competition” and “protect[ing] the public,” *ibid.*) by imposing a set of conditions upon the federal funds recipient, by providing that sometimes the Government will take direct control of the patent rights, and by adding that on occasion the Government will permit the individual inventor to retain those rights. §§ 202–203.

Given this basic statutory objective, I cannot so easily accept the majority's conclusion—that the individual inventor



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can lawfully assign an invention (produced by public funds) to a third party, thereby taking that invention out from under the Bayh-Dole Act's restrictions, conditions, and allocation rules. That conclusion, in my view, is inconsistent with the Act's basic purposes. It may significantly undercut the Act's ability to achieve its objectives. It allows individual inventors, for whose invention the public has paid, to avoid the Act's corresponding restrictions and conditions. And it makes the commercialization and marketing of such an invention more difficult: A potential purchaser of rights from the contractor, say, a university, will not know if the university itself possesses the patent right in question or whether, as here, the individual, inadvertently or deliberately, has previously assigned the title to a third party.

Moreover, I do not agree that the language to which the majority points—the words “invention of the contractor” and “retain”—requires its result. As the majority concedes, Stanford's alternative reading of the phrase “‘invention of the contractor’” is “plausible enough in the abstract.” *Ante*, at 788–789. Nor do I agree that the Act's lack of an explicit provision for “an interested third party” to claim that an invention was not the result of federal funding “bolsters” the majority's interpretation. *Ante*, at 791. In any event, universities and businesses have worked out ways to protect the various participants to research. See Brief for Association of American Universities et al. as *Amici Curiae* 22–24 (hereinafter AAU Brief); App. 118–124 (Materials Transfer Agreement between Cetus and Stanford University).

Ultimately, the majority rejects Stanford's reading (and the Government's reading) of the Act because it believes that it is inconsistent with certain background norms of patent law, norms that ordinarily provide an individual inventor with full patent rights. *Ante*, at 789. But in my view, the competing norms governing rights in inventions for which the public has already paid, along with the Bayh-Dole Act's objectives, suggest a different result.

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## III

There are two different legal routes to what I consider an interpretation more consistent with the statute's objectives. First, we could set aside the Federal Circuit's interpretation of the licensing agreements and its related licensing doctrine. That doctrine governs interpretation of licensing agreements made *before* an invention is conceived or reduced to practice. Here, there are two such agreements. In the earlier agreement—that between Dr. Holodniy and Stanford University—Dr. Holodniy said, “I *agree to assign* . . . to Stanford . . . that right, title and interest in and to . . . such inventions as required by Contracts or Grants.” App. to Pet. for Cert. 119a (emphasis added). In the later agreement—that between Dr. Holodniy and the private research firm Cetus—Dr. Holodniy said, “I will assign and *do hereby assign* to Cetus, my right, title, and interest in” here relevant “ideas” and “inventions.” *Id.*, at 123a (emphasis added; capitalization omitted).

The Federal Circuit held that the earlier Stanford agreement's use of the words “agree to assign,” when compared with the later Cetus agreement's use of the words “do hereby assign,” made all the difference. It concluded that, once the invention came into existence, the latter words meant that the Cetus agreement trumped the earlier, Stanford agreement. 583 F. 3d 832, 841–842 (2009). That, in the Circuit's view, is because the latter words operated upon the invention automatically, while the former did not. Quoting its 1991 opinion in *FilmTec Corp. v. Allied-Signal Inc.*, 939 F. 2d 1568, 1572, the Circuit declared that “[o]nce the invention is made and [the] application for [a] patent is filed, . . . legal title to the rights accruing thereunder would be in the assignee [*i. e.*, Cetus] . . . , and the assignor-inventor would have nothing remaining to assign.” 583 F. 3d, at 842.

Given what seem only slight linguistic differences in the contractual language, this reasoning seems to make too much of too little. Dr. Holodniy executed his agreement with

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Stanford in 1988. At that time, patent law appears to have long specified that a present assignment of future inventions (as in both contracts here) conveyed equitable, but not legal, title. See, *e. g.*, G. Curtis, *A Treatise on the Law of Patents for Useful Inventions* § 170, p. 155 (3d ed. 1867) (“A contract to convey a future invention . . . cannot alone authorize a patent to be taken by the party in whose favor such contract was intended to operate”); Comment, *Contract Rights as Commercial Security: Present and Future Intangibles*, 67 *Yale L. J.* 847, 854, n. 27 (1958) (“The rule generally applicable grants equitable enforcement to an assignment of an expectancy but demands a further act, either reduction to possession or further assignment of the right when it comes into existence”).

Under this rule, both the initial Stanford and later Cetus agreements would have given rise only to equitable interests in Dr. Holodniy’s invention. And as between these two claims in equity, the facts that Stanford’s contract came first and that Stanford subsequently obtained a postinvention assignment as well should have meant that Stanford, not Cetus, would receive the rights its contract conveyed.

In 1991, however, the Federal Circuit, in *FilmTec*, adopted the new rule quoted above—a rule that distinguishes between these equitable claims and, in effect, says that Cetus must win. The Federal Circuit provided no explanation for what seems a significant change in the law. See 939 F. 2d, at 1572. Nor did it give any explanation for that change in its opinion in this case. See 583 F. 3d, at 841–842. The Federal Circuit’s *FilmTec* rule undercuts the objectives of the Bayh-Dole Act. While the cognoscenti may be able to meet the *FilmTec* rule in future contracts simply by copying the precise words blessed by the Federal Circuit, the rule nonetheless remains a technical drafting trap for the unwary. See AAU Brief 35–36. But cf. *ante*, at 793 (assuming ease of obtaining effective assignments). It is unclear to me why,

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where the Bayh-Dole Act is at issue, we should prefer the Federal Circuit’s *FilmTec* rule to the rule, of apparently much longer vintage, that would treat both agreements in this case as creating merely equitable rights.

At the same time, the Federal Circuit’s reasoning brings about an interpretation contrary to the intention of the parties to the earlier, Stanford, contract. See App. to Pet. for Cert. 120a (provision in Stanford contract promising that Dr. Holodniy “will not enter into any agreement creating copyright or patent obligations in conflict with this agreement”). And it runs counter to what may well have been the drafters’ reasonable expectations of how courts would interpret the relevant language.

Second, we could interpret the Bayh-Dole Act as ordinarily assuming, and thereby ordinarily requiring, an assignment of patent rights by the federally funded employee to the federally funded employer. I concede that this interpretation would treat federally funded employees of contractors (subject to the Act) differently than the law ordinarily treats private sector employees. The Court long ago described the latter, private sector principles. In *United States v. Dubilier Condenser Corp.*, 289 U.S. 178 (1933), the Court explained that a “patent is property and title to it can pass only by assignment.” *Id.*, at 187. It then described two categories of private sector employee-to-employer assignments as follows: First, a person who is

“employed to make an invention, who succeeds, during his term of service, in accomplishing that task, is bound to assign to his employer any patent obtained.” *Ibid.*

But, second,

“if the employment be general, albeit it cover a field of labor and effort in the performance of which the employee conceived the invention for which he obtained a patent, the contract is not so broadly construed as to require an assignment of the patent.” *Ibid.*

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The Court added that, because of “the peculiar nature of the act of invention,” courts are “reluctan[t] . . . to imply or infer an agreement by the employee to assign his patent.” *Id.*, at 188. And it applied these same principles governing assignment to inventions made by employees of the United States. *Id.*, at 189–190.

Subsequently, however, the President promulgated Executive Order No. 10096. Courts have since found that this Executive Order, not *Dubilier*, governs Federal Government employee-to-employer patent right assignments. See, e. g., *Kaplan v. Corcoran*, 545 F. 2d 1073, 1076–1077 (CA7 1976); *Heinemann*, 796 F. 2d, at 455–456; *Wright v. United States*, 164 F. 3d 267, 269 (CA5 1999) (*per curiam*); *Halas v. United States*, 28 Fed. Cl. 354, 364 (1993). The Bayh-Dole Act seeks objectives roughly analogous to the objectives of the Executive Order. At least one agency has promulgated regulations that require Bayh-Dole contractors to insist upon similar assignments. See NIH Policies, Procedures, and Forms, A “20–20” View of Invention Reporting to the National Institutes of Health (Sept. 22, 1995) (available in the Clerk of Court’s case file) (requiring a Government contractor, such as Stanford University, to “have in place employee agreements requiring an inventor to ‘assign’ or give ownership of an invention to the organization upon acceptance of Federal funds,” as the Bayh-Dole Act “require[s]”). And an *amicus* brief, filed by major associations of universities, scientists, medical researchers, and others, argues that we should interpret the rules governing assignments of the employees at issue here (and consequently the Act’s reference to “invention[s] of the contractor”) in a similar way. AAU Brief 5–14.

The District Court in this case adopted roughly this approach. 487 F. Supp. 2d 1099, 1118 (ND Cal. 2007) (“[A]lthough title still vests in the named inventor, the inventor remains under a legal obligation to assign his interest either to the government or the nonprofit contractor unless the in-

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ventor acts within the statutory framework to retain title”). And since a university often enters into a grant agreement with the Government for a researcher’s benefit and at his request, see J. Hall, *Grant Management* 205 (2010), implying such a presumption in favor of compliance with the grant agreement, and thus with the Bayh-Dole Act, would ordinarily be equitable.

## IV

As I have suggested, these views are tentative. That is because the parties have not fully argued these matters (though one *amicus* brief raises the license interpretation question, see Brief for Alexander M. Shukh 18–24, and at least one other can be read as supporting something like the equitable presumption I have described, see AAU Brief 5–14). Cf. *ante*, at 784, n. 2. While I do not understand the majority to have foreclosed a similarly situated party from raising these matters in a future case, see *ibid.*, I believe them relevant to our efforts to answer the question presented here. Consequently, I would vacate the judgment of the Federal Circuit and remand this case to provide the parties with an opportunity to argue these, or related, matters more fully.

Because the Court decides otherwise, with respect, I dissent.