Press Release

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Knowledge Ecology International and Union for Affordable Cancer Treatment ask Obama Administration to End Monopoly on Expensive Prostate Cancer Drug (Xtandi) Invented on Government Grants.

Petition asked government to use "march-in" rights or royalty-free license on three NIH and DoD funded patented inventions.

Washington, DC, Jan. 14, 2015 — Knowledge Ecology International (KEI) and the Union for Affordable Cancer Treatment (UACT) petitioned United States government agencies to protect patients and authorize the generic production of an expensive prostate cancer drug that is still under patent, but was developed with federal funds.

The drug, which has a generic name of enzalutamide, was developed at UCLA under National Institutes of Health (NIH) and Department of Defense grants, and is marketed by the Japanese-owned company Astellas, under the brand name Xtandi. The drug is sold in capsules or tablets of 40 mg at an average wholesale price of $88.48 per capsule, which works out to $129,269 per year ($88.48 x 4 times per day x 365.25 days).

Astellas charges much lower prices for Xtandi in all other countries. The petition cites prices from 13 other high income countries. Prices are two and a half to four times higher in the United States than in any of those 13 high income countries. Astellas sells Xtandi in Japan for less than one-third of the U.S. price.

The petition is available here:
http://keionline.org/sites/default/files/Xtandi-March-In-Request-Letter-14Jan2016.pdf

Background information, including historical context, statutory analysis, and information on enzalutamide and prostate cancer, is available at the end of this press release.

The two patient advocacy groups, both of which advocate for access to affordable drugs and the reform of intellectual property rules, asked the Department of Health and Human Services, the National Institutes of Health, and the Department of Defense to use their rights to allow the generic production of enzalutamide.

Under the Bayh-Dole Act of 1980, federal agencies and departments have two different authorities: they have “march-in rights,” a process by which an agency can issue non-exclusive licenses to the patent rights after it has decided that an invention has not been made available to the public on “reasonable terms,” or they can use their nonexclusive, royalty-free worldwide license on the patents that were supported with federal grants.

Both the National Institutes of Health and the Department of Defense contributed to the development of enzalutamide at the University of California, Los Angeles. Their grants funded two clinical trials that were used to obtain FDA marketing approval for enzalutamide’s lead indications.

UCLA licensed the drug to Medivation, a small San Francisco biopharmaceutical company. One of the chief inventors of enzalutamide, Dr. Eric L. Sawyers, then a Professor at UCLA, had previously worked with the founder of Medivation at the University of California, San Francisco. Dr. Sawyers served on the Medivation Scientific Advisory Board and received stock as compensation for his work. He is a recipient of the prestigious Lasker Award.

Medivation later entered into a collaboration agreement with Astellas, a Japanese pharmaceutical firm that markets the drug under the brand name Xtandi. Medivation and Astellas share costs and revenues for the drug.

Spending on enzalutamide has steadily increased since entering the market; Medicare spent $447 million on the drug in 2014, 93-percent more than in 2013, and Astellas projects sales of over $1 billion in the United States for their FY2015 (April 1, 2015 - March 31, 2016). Sales to Medicare accounted for 49-percent of global sales on enzalutamide in 2014, and 66-percent of U.S. sales. Overall, the United States accounted for 61-percent of the market in 2014.

“Astellas, a Japanese-owned drug company, is exploiting the weak response of the United States to excessive pricing of drugs, and is charging U.S. consumers and third-party payers roughly two to four times as much as the prices in other high income countries,” the petition said.

Last week, over fifty members of Congress sent a letter to the NIH and the Department of Health and Human Services requesting regulations that would authorize the exercise of march-in in cases where patent holders set excessive prices on drugs.

The following quote is attributable to James Love, Director of Knowledge Ecology International, an expert on issues related to drug pricing, intellectual property law, and pharmaceutical innovation policy:

> "It is one thing for a company from Japan to take U.S. taxpayer-funded medical research and earns billions in profits, and another to charge U.S. residents three times as much a residents of Japan, for the same product. But who can blame Astellas? It is the U.S. federal government who has turned a blind eye to the abuses of drug pricing, and most inexcusable, abuses of NIH (and in this case DoD) funded patent rights. We read in the paper every day about drug pricing abuses, and government officials wishing they could do something about them. Well, in this case, all the federal government has to say is that the monopoly will end, if the prices are excessive, and specifically in this case, if the U.S. is paying more than everyone else. If U.S. residents continue to pay more than everyone else, it is because the federal government wants that outcome, and will do nothing to change it."

The following quote is attributable to Dr. Ruth Lopert, an adjunct professor in the Department of Health Policy & Management, Milken Institute School of Public Health, The George Washington University, a member of the Union for Affordable Cancer Treatment (UACT), and a former drugs regulator at the Australian version of the FDA:

> "The NIH has referred to the application of march-in rights as an "extraordinary remedy." This begs the question of how egregious the circumstances need to be for this federal agency to consider them extraordinary enough for it to put into effect provisions that have been on the statute books for over 35 years."

The following quote is attributable to Professor Michael Davis, a cancer patient, member of the Union for Affordable Cancer Treatment (UACT), and a co-author of a paper on Bayh-Dole March-In rights, "Why Don't We Enforce Existing Drug Price Controls? The Unrecognized and Unenforced Reasonable Pricing Requirements Imposed upon Patents Deriving in Whole or in Part from Federally Funded Research," who teaches intellectual property law at the Cleveland State University Cleveland-Marshall College of Law:

> "For over thirty years my colleague Peter Arno and I have urged various administrations to use the Bayh-Dole statute to reduce prices in government funded pharmacological inventions. The NIH has statutory responsibility for preventing abuses of patent rights in NIH funded inventions, but has rejected every petition to do so, and for the very same misguided reasons. First they say the legislature should do it. But the legislature has done it! With the Bayh-Dole Act, Congress told the funding agency to make sure drug prices are reasonable.

> “The NIH has also tirelessly, and tiresomely, said they are not competent to set prices. This petition does not ask the NIH to undertake complex analysis, it asks the NIH to decide if it is reasonable for US residents to pay more than everyone else, for inventions funded by our own tax dollars. If the NIH is unwilling to make this call, it should ask for advice from another agency in the federal government to do so. If the NIH thinks it is hard to decide when a drug costs too much, consider the pain of paying too much. And in this case, paying far more than everyone else. Today's petition simply asks the NIH to do its legislative job, and enough with the phoney excuses.”

Below is contact information for experts with experience in oncology research and the Bayh-Dole Act, as well as for Medivation, Astellas, the NIH, UCLA, and the DoD.

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Background Information (alphabetical order):

Bayh-Dole Act

Congress passed the Bayh-Dole Act in 1980 (Public Law 96-517), when it was signed into law by President Jimmy Carter. The law has been amended since then and is codified at 35 U.S.C. Chapter 18 §§ 200-212, titled "Patent Rights in Inventions Made With Federal Assistance." Provisions in Chapter 18 are implemented by 37 CFR 401.14.

Bayh-Dole outlines the objectives of the grant of federal funds to support commercial research and development, the policy of the United States government in regards to the commercialization and availability of patented inventions resulting from federal support, and the rights of the government to license or manufacture such inventions.

The Act was designed to facilitate the patenting of U.S. government funded inventions by universities, other non-profit entities, and businesses. It "permits a university, business, or non-profit institution to elect to pursue ownership of an invention in preference to the government holding the title" (KEI, "Notes on the Bayh-Dole Act of 1980").

KEI has extensive information on the Bayh-Dole Act and march-in requests here:

http://keionline.org/government-funded-RnD

This includes links to various march-in requests, as well as:

- Notes on the Bayh-Dole Act of 1980, http://keionline.org/bayh-dole-notes
- For a regulatory and legislative history: Bayh-Dole Timeline, http://keionline.org/timeline-bayh-dole

Enzalutamide (Xtandi)

Enzalutamide is an androgen receptor-signaling inhibitor used to treat metastatic castration resistant prostate cancer (mCRPC). It is marketed by Astellas as Xtandi.

U.S. Statistics on Prostate Cancer[1]

Estimated new cases in 2015: 220,800
Percent of all new cancer cases: 13.3%
Estimated prevalence of cancer in 2012: 2,795,592
Estimated deaths in 2015: 27,540 (compare to 32
Percent of all cancer deaths: 4.7%
Third most common cancer.
Median age at diagnosis: 66 years

Lifetime Risk of Developing Cancer: Approximately 14.0 percent of men (more than 1 in 7) will be diagnosed with prostate cancer at some point during their lifetime, based on 2010-2012 data.

Number of New Cases and Deaths per 100,000: The number of new cases of prostate cancer was 137.9 per 100,000 men per year. The number of deaths was 21.4 per 100,000 men per year. These rates are age-adjusted and based on 2008-2012 cases and deaths.

[1] Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) Research Data (1973-2012), SEER Stat Fact Sheets: Prostate Cancer, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission. Accessed January 6, 2015.

Recent Press Coverage of Congressional March-In Request to NIH

Bronwyn Mixter, "House Democrats Form Task Force on Rx Drug Prices," Bloomberg BNA, Jan. 12, 2016.

Kimberly Leonard, "Can the Government Already Control Drug Prices?," U.S. News & World Report, Jan. 11, 2016.

Emily Wasserman, "Congressional reps urge the NIH to 'march in' on rising drug prices," FiercePharma, Jan. 11, 2016.

Michael Mezher, "Lawmakers Urge HHS to Exercise 'March-in' Rights to Fight Higher Drug Costs," Regulatory Affairs Professionals Society, Jan. 11, 2016.

Note: This press release was updated on April 28, 2016, to reflect an error related to the distinction between "march-in rights" and the Federal Government's royalty-free, non-exclusive license on the patents for Xtandi. Minor style and grammar edits were also made.