Purdue Research Foundation

STARTUP CLASS OF 2016

Entrepreneurs changing our world.
Class of 2016 Purdue Startups

Purdue University exceeded its own record-breaking startup and commercialization activities for the third consecutive year with 27 startups based on Purdue intellectual property and another 12 startups based on innovations owned by faculty, staff and students.

Increases in other commercialization activities from FY15 to FY16 compared to the previous years and filed through the Purdue Research Foundation Office of Technology Commercialization and Purdue Foundry include:

- Invention disclosures filed: 317 to 376 for a 18.6 percent increase.
- Licensing agreements of Purdue innovations: 131 to 147 for a 12.2 percent increase.

A recent report released by the National Academy of Inventors (NAI) and the Intellectual Property Owners Association (IPO), reported that Purdue is ranked 15th in the world among universities granted U.S. utility patents in 2015. This ranking in patent activity is up from the previous year’s spot of 16th.

“One might call three consecutive years of commercialization results a happy coincidence, but these steady and deliberate increases represent a purposeful desire of our outstanding faculty, staff and students to move innovations to the public through a strong entrepreneurial system to support these endeavors,” said Purdue Research Foundation President Dan Hasler. “By doing so, Purdue serves one of its most important missions in researching and developing life-changing innovations, which positively affect the lives of millions around the world.”

Of the 76 startups founded in the past three years, 57 are located in Indiana. Also, in the past two years, Purdue-affiliated startups have raised more than $96 million in venture funding and created 156 new positions. The funding was raised by the 24 members of the Purdue Startup Class of 2014 and the 25 members of the Purdue Startup Class of 2015. Both groups of startups licensed technologies from the Purdue Research Foundation Office of Technology Commercialization. The startups represent high-tech or life sciences research for industry sectors including engineering, industrial technology, information technology, life sciences, biomedical devices, nanotechnology, pharmaceuticals and software development.

“From the beginning, Purdue Research Foundation has been dedicated to fostering an entrepreneurial environment, and building a hub for startup creation so that our faculty, staff and students have the means to commercialize life-changing innovations and move them to the public,” said Hasler. “These 27 startups really are a testament to that goal and the dedication and commitment of the university’s outstanding innovators, resources and community.”

For more information about available leadership positions, investing in a Purdue startup or licensing a Purdue innovation, visit PurdueFoundry.com.
Purdue IP-Licensed Startups

Adam Weaver
Adranos Energetics LLC
Amplified Sciences LLC
Davista Technologies LLC
Didacticron Inc.
Experience Design Group LLC
Expimetrics LLC
Greater Innovations LLC
Grissom Controls LLC
Houston Mechatronics Inc.
Humotus LLC
J & H Consulting LLC
JUA Technologies International LLC
Lodos Theranostics LLC
Maji Safi International Inc.
MedNoxa LLC
Monojul LLC
Penguin Innovations Inc.
Pinpoint Pharma LLC
Phicrobe LLC
Resarci Therapeutics LLC
Scientific Ceramic Engineering Inc.
Simplexity Simulations LLC
STEMinent LLC
Sustainable Rain Forest Solutions LLC
Virtualis LLC

FY 2016 Purdue Faculty-, Staff- or Student-owned Startups

5D Analytics
Aerial Agriculture LLC
Boce LLC
Insulink LLC
MBAville
NimTree Organics LLC
Nuggit Games LLC
OWL LLC
Perceive Inc.
SAMCRO Technologies LLC
Terp2Go LLC
Adam Weaver has developed the Weave Design, a technology that could provide a more effective, low-cost, and environmentally friendlier way to efficiently deliver coolant to turbine blades in gas turbine engines.

Seeking federal funding or partnerships with original equipment manufacturers to integrate the system and qualify the design.

aeroheadg8@gmail.com
Adranos Energetics co-founders Chris Stoker and Brandon Terry are developing a new rocket fuel formulation to make rockets used in military and space-launch applications travel further, carry greater payloads, and be safer for the environment. Seeking funding to expand the technology into large-scale rocket systems and support business development activities.

www.adranosenergetics.com
Amplified Sciences co-founders Vincent Jo Davisson and Matthew Bartolowits, are developing a point-of-care kidney disease detection technology that could detect kidney damage earlier than current methods and help prevent the need for dialysis or kidney transplants. The technology could also provide a large cost benefit to the health-care system.

Seeking funding to help expand the company, further develop the technology and conduct clinical tests in route to market.

vjdavisson@amplifiedsci.com
Davista Technologies co-founders, David Ebert and Abish Malik, are commercializing a visual data analytics solutions technology that could provide real-time information to help first responders save lives.

Seeking investors and personnel to help grow the company. Exploring new markets and pursuing first paying customers.

www.davistatechnologies.com
Didactictron founder Larry Himes, is commercializing a six-axis, open source controller and teaching pendant that could allow technology college students an affordable way to gain real-world, hands-on experience in automation and robotics.

Working to further develop the controller and take it to market.

www.didactictron.com
Nancy Rasche, founder of Experience Design Group, is commercializing Literacy Labels, an app that could help children with autism read, understand and spell words in a more customized and engaging way by using printable labels.

Seeking software developers and potential business partners to expand the company.

www.exp-designgroup.com
nrasche@purdue.edu
Expimetrics founder Louis Tay is commercializing a web and app-based platform that captures ongoing dynamic real-time insights for social scientists and work organizations to understand how people experience products, politics, work environments, and services.

Seeking developers and seed funding to further develop the technology.

www.expimetrics.com
Greater Innovations founder Elizabeth Thompson has licensed a Purdue innovation that could develop dried distillers grain solids into a low-cost, higher quality option for animal feeds and a more sustainable, biodegradable option for fertilizers. Currently seeking funding and manufacturing partnerships to take the product to market.

www.greaterinnovationsllc.com
Grissom Controls founder Andrew Martin is commercializing a software solution that could allow commercial building owners and occupants to cut utility costs by optimizing the controls for their heating, cooling and ventilation systems.

Seeking partnerships with building automation system providers to further develop the software.

marti330@purdue.edu
Houston Mechatronics co-founders Matt Ondler, Nicolaus Radford and Reg Berka (not pictured) have licensed a Purdue innovation that could optimize electric motors and design more efficient, cost effective and greener alternatives in automation in the energy sector.

Working to continue to grow and capture more market share in each market segment.

www.houstonmechatronics.com
Humotus co-founders Joshua Liddy and Samuel Pontecorvo have developed a low-cost, easy-to-use software application that is able to capture human movement, providing clinicians more comprehensive and quantitative information regarding a patient’s prognosis.

Seeking funding to help complete validation studies for the product and take it to market.

www.humotus.com
J&H Consulting co-founders Brad C. Joern and Philip J. Hess are developing and licensing agricultural software tools that help farmers and agribusiness improve crop yield forecasting, nutrient management and environmental protection.

Seeking partnerships with companies interested in collaborative development and licensing opportunities.

phil@jandhconsulting.com
brad@jandhconsulting.com
JUA Technologies International co-founders Reiko Habuto Illeleji and Klein Illeleji are commercializing an affordable, solar powered crop drying device for smallholders in developing countries and small organic farms in the United States to reduce post-harvest losses.

Working to further develop the dryer and test more crops. Seeking manufacturing partnerships in other countries and company board members to help give guidance.

www.dehymeleon.com
Lodos Theranostics co-founders Rachel Kim and You-Yeon Won, are developing a unique nanoparticle ultraviolet radiation technology that could enhance cancer cell killing effects of radiation treatment, thus reducing radiation doses and patient side effects.

Seeking funding to further develop the technology. Working to partner with companies that have expertise in conducting human trials.

www.lodostheranostics.com
Maji Safi International founder, John Maiyo and two company advisors Chad Jafvert and John Howarter, are developing a low-cost, low-maintenance slow sand water filter technology to better provide clean and safe drinking water to schools and communities in developing countries. The company also installs groundwater wells, provides ceramic filters, as well as the slow sand filters in Western Kenya.

Seeking potential partnerships with local manufacturers and support from people who would like to sponsor one or more schools to enable filters to be installed.

jmaiyo@purdue.edu
MedNoxa founder Eric Frey licensed a Purdue innovation that provides a novel, over-the-counter oxygen generation and delivery bandage that could bring an effective and affordable wound healing solution to diabetic patients.

Seeking a co-founder with a medical background, partnerships with physicians, and funding to further product and company development.

www.mednoxa.com
Penguin Innovations co-founders John Hertig and Steve Abel, are commercializing a certified virtual pharmacy clean room laboratory for students and other industry professionals to gain hands-on experience in creating sterile, accurately prepared, high quality products.

Seeking academic and hospital based partners to help test the technology in a practice environment, and funding to further commercialize the technology.

penguin-innovations.com
Pinpoint Pharma founder Arun Giridhar is commercializing a portable inkjet printer to produce precise, personalized medication dosages faster than traditional methods, which could improve overall drug effectiveness and decrease patient side effects.

Working to build a market prototype to test with potential customers.

agiridha@ecn.purdue.edu
Phicrobe Founder Bruce Applegate, is commercializing a technology that could provide a rapid, simple and inexpensive test for the detection of pathogenic E.coli.

Seeking partnerships with companies who distribute pathogen detection kits.

www.phicrobe.com
Resarci Therapeutics co-founders Ji-Xin Cheng, Junjie Li and Timothy L. Ratliff are commercializing a late-stage prostate cancer therapy that could provide an alternative to current hormone therapies that are known to develop resistance after prolonged use.

Seeking investors or potential partnerships with pharmaceutical companies to further improve product, test in preclinical settings and launch an early-stage clinical trial.

li603@purdue.edu
Scientific Ceramic Engineering CEO David Forster and CTO Matthew Kuhns, have licensed a Purdue ceramic injection-molding technology that could produce stronger, faster and less-expensive complex ceramic parts for a multitude of industries.

Working to qualify the process and finalize commercialization approach to take the product to market.

www.scientificccim.com
Simplexity Simulations co-founders Lyudmila Slipchenko and Pradeep Kumar Gurunathan are commercializing a molecular modeling simulation software that could help pharmaceutical companies more accurately predict the crystal structure of a drug once produced.

Seeking funding to further develop the software. Beginning beta testing with pharmacists in the West Lafayette area.

www.simplexitysimulations.com
STEMinent founder Monica Cox is commercializing a more valid, consistent and unbiased educational assessment online platform to assess faculty performance in the classroom in real time.

Working to expand and further develop the company and product.

cox.1192@osu.edu
Sustainable Rainforest Solutions founder Lori Unruh Snyder is commercializing an informational and interactive app that could allow travelling students, professors, tourists and plant enthusiasts to easily access a database of tropical plant profiles.

Seeking partnerships to further develop the app in tropical locations and explore its usefulness in other applications.

sustainablerainforestsolutions.com
sustainablerainforestsolutions@gmail.com
Virtualis founder David Whittinghill is commercializing a virtual nose technology that could allow better virtual reality experiences for users, decreasing the effects of VR sickness and increasing the amount of play time.

Seeking funding to advance company and further develop other VR sickness solutions and game-orientated experiences.

www.virtualis.io
MONOJUL

Monojul is an Illinois-based life sciences company developing novel cancer treatment technologies.

SOFTWARE BUG LOCALIZATION

Software Bug Localization founder Jason Pottinger is commercializing a technology that utilizes unique algorithms to improve the accuracy of software bug localization, narrowing the parts of software that require examination to save time and money.
FAy 2016 Purdue Faculty-, Staff- or Student-owned Startups

5D Analytics LLC, an engineering support services company providing expertise in optimizing organizational policy, information, processes, workflow, and life-cycle sustainment through experienced representatives and patented software tools.
Wes Evans, 812-340-3956, wevans@5danalytics.com

Aerial Agriculture LLC, an agriculture technology startup building agricultural drones in-house that can capture specialized images of entire crop fields. The technology could input costs and increase farmers’ yields.
Austin Deardorff, deardorf@purdue.edu

Boce LLC, a tech startup developing an extension for existing action camera mounts that simplifies and speeds adjusting a camera's direction during action enthusiasts’ adventures.
Adam Einck, aeinck@purdue.edu

Insulink LLC, a health technology company, developing a holistic mobile and web-based application that targets all aspects of diabetes management including emotional support, local networks, health data analysis, targeted advice, and 24/7 educator care.
www.insulinkcommunity.com
David Smith, team@insulinkcommunity.com

MBAville, is a gamified MBA program that could provide a more engaging, integrated approach to teaching business concepts by utilizing an immersive, fantasy environment.
Arun Sivasankar Bharadwaj, 765-337-3984, abharad@purdue.edu
Perceive Inc., a retail analytics software startup, is developing a user-friendly, cost-effective computer and camera software program that provides data on the operations and environment of a store.
Kyle McNulty, kmcnulty@perceiveinc.com.

Nuggit Games LLC, a design company developing custom laser-cut wooden boxes for board games that have outgrown their original boxes.
www.nuggitgames.com
Sean Sullivan, 765-216-5554, nuggitgames@gmail.com

OWL LLC, a tech startup developing a smartphone app and fitness-tracking device aimed at encouraging children to be more physically active.
www.myowlfitness.com
Ryan Ma, ma97@purdue.edu or myowlfitness@gmail.com

SAMCRO Technologies LLC, a software startup, is marketing a platform that uses data from sensors on construction equipment to streamline the construction process through a model of the site operations.
Joseph Louis, jlouis2k4@gmail.com or joseph.louis@oregonstate.edu
Phillip Dunston, 765-494-0640, dunston@purdue.edu

TERP2GO LLC, a technology company translating online higher education audiovisual content into sign language for deaf and hard of hearing students.
www.terp2go.com
Jessica Robinson, 317-332-4913, jrobinson@terp2go.com

NimTree Organics LLC, an agriculture product company which markets and sells Neem tree based organic fertilizer and pesticides which are produced in India by Neem India Products Private Ltd.
www.nimtreeorganics.com
Harsh Joshi, 765-586-2046, info@nimtreeorganics.com

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Resources for Entrepreneurs

**Learn About Entrepreneurship**

Certificate in Entrepreneurship and Innovation Program

Offers a series of five courses designed with flexibility in mind, which provides the opportunity for undergraduate students to gain an entrepreneurship certificate that is complementary to all majors. [www.purdue.edu/entr](http://www.purdue.edu/entr)

The Anvil

Bridges the gap between an idea and a startup, and will provide resources for innovators. [anvilstartups.com](http://anvilstartups.com)

Deliberate Innovation for Faculty (DIFF)

DIFF provides mentoring for Purdue innovators who have an interest in translating their inventions to the public through commercialization, collaboration or entrepreneurship. [www.prf.org/otc/innovators/faculty/deliberate-innovation.html](http://www.prf.org/otc/innovators/faculty/deliberate-innovation.html)

**Starting a Company**

Purdue Foundry

Provides support for business plans, prototype development, funding sources, finance opportunities, regulatory requirements and mentoring, and can offer advice on other entrepreneurial activities. [www.purduefoundry.com](http://www.purduefoundry.com)

Indiana Economic Development Corporation (IEDC)

Oversees programs enacted by the General Assembly including tax credits, workforce training grants and public infrastructure assistance. [iedc.in.gov](http://iedc.in.gov)

Small Business Development Centers (SBDC)

Provides assistance to small businesses and aspiring entrepreneurs. [www.sba.gov/tools/local-assistance/sbdc](http://www.sba.gov/tools/local-assistance/sbdc)

**Fund Your Innovation**

Foundry Investment Fund

A $12 million not-for-profit fund to support startups originating from Purdue innovations. [www.prf.org/otc/startups/funding/foundry-investment-fund.html](http://www.prf.org/otc/startups/funding/foundry-investment-fund.html)
Elevate Purdue Foundry Fund

A $2 million fund created through a collaboration among Purdue Foundry, Elevate Ventures and the Indiana Economic Development Corporation. Qualified Purdue-affiliated startups may apply for two tiers of funding: the “Black Award,” a $20,000 convertible nonrecourse note, and the “Gold Award,” for up to an additional $80,000 debt or equity.

www.purduefoundry.com/elevate

Trask Innovation Fund (TIF)

Assists faculty with funding to further the commercial potential of technologies disclosed to the Office of Technology Commercialization (OTC).

www.prf.org/otc/startups/funding/trask-innovation-fund.html

Purdue Startup Fund

The Purdue Research Foundation and University Development Office have launched the Purdue Startup Fund to maximize Purdue’s commitment to serve others through the commercialization of innovations. As a part of this initiative, a $5 million matching program will provide a 1:1 match for gifts to this fund, resulting in more than $10 million to expedite and generate even more commercialization and startup creation.


Ag-celerator

This plant sciences innovation fund is designed to provide critical startup support for Purdue innovators who wish to commercialize patented intellectual property or Purdue “know-how” technologies in plant sciences, including areas of research in crop optimization, hybrid and seed development, and precision agriculture.


Elevate Ventures Inc.

Nurtures and develops emerging and existing high-potential businesses into high-performing, Indiana-based companies. www.elevateventures.com

Find Interesting Technologies

Purdue Office of Technology Commercialization (OTC)

Operates one of the most comprehensive technology transfer programs among leading research universities in the United States. www.prf.org/otc/technologies/index.html
The Purdue Foundry is an entrepreneurship and commercialization hub in Discovery Park’s Burton D. Morgan Center for Entrepreneurship whose professionals help Purdue innovators create startups. Managed by the Purdue Research Foundation, the Purdue Foundry received the 2014 Incubator Network of the Year from the National Business Incubation Association for its work in entrepreneurship. For more information about funding and investment opportunities in startups based on a Purdue innovation, contact the Purdue Foundry at foundry@prf.org

The Purdue Office of Technology Commercialization operates one of the most comprehensive technology transfer programs among leading research universities in the U.S. Services provided by this office support the economic development initiatives of Purdue University and benefit the university’s academic activities. The office is managed by the Purdue Research Foundation, a private, not-for-profit organization that serves Purdue University. For more information on licensing a Purdue innovation, contact the Office of Technology Commercialization at innovation@prf.org

Send correspondence to:
President and Chief Entrepreneurial Officer
Purdue Research Foundation
Herman and Heddy Kurz Purdue Technology Center
1281 Win Hentschel Blvd.
West Lafayette, IN 47906

Visit these Web sites for more information about the Purdue Research Foundation, the Office of Technology Commercialization, the Purdue Foundry and the Innovation and Entrepreneurship page:
» prf.org
» prf.org/otc
» purduefoundry.com
» innovation-entrepreneurship-purdue.com

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