



ON HEALTH CARE BY JOHN GEORGE

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AUTISM FUNDING

TEN RESEARCHERS TO DIVVY UP \$2.5M

The Philadelphia Eagles released the names this week of The Philadelphia researchers, and their projects, that will divvy up the \$2.5 million the team raised to support Autism research at its Inaugural Eagles Autism Challenge last May.

Here's the list of the researchers, where they are from, and what they will use the funding to study:

- ▶ **Kristen Lyall**, an assistant professor in the A.J. Drexel Autism Institute at Drexel University, will study maternal/dietary patterns during pregnancy in association with autism and autism-related traits.
- ▶ **Elizabeth Hassrick**, an assistant professor at Drexel University, plans to use network analysis to investigate employment support for low-resource youth with autism spectrum disorder (ASD) and measure the impact of collaboration among organizations providing employment support for low-resource youth with ASD and their families in Philadelphia.
- ▶ **Giuseppe Vivanti**, Drexel University, an assistant professor at Drexel's A.J. Drexel Autism Institute, will look at addressing the unmet needs of young children with ASD and their working families in underserved communities.
- ▶ **Dr. Nathan Blum**, chief of the division of developmental and behavioral pediatrics at the Children's Hospital of Philadelphia, will assess the feasibility, acceptability, and preliminary efficacy of an adaptive intervention approach for children with autism and disruptive behavior.
- ▶ **John Harrington**, psychologist in the department of child and adolescent psychiatry and behavioral sciences at CHOP, will study bio-behavioral markers of anxiety and ADHD in ASD.
- ▶ **William Geatz**, a research scientist in the department of radiology at CHOP, will explore the biological mechanisms underlying comorbidity of autism and epilepsy.
- ▶ **Dr. Judith Ross**, a pediatric endocrinologist at Jefferson Health, along with Jefferson researchers Diane Morry and Matthew Davis, will study sex chromosome mediators of ASD.
- ▶ **Roseann G. Schaaf**, a professor and chairwoman of the department of occupational therapy at Thomas Jefferson University, will measure sensory features in autism in a project that will also include validity and reliability testing.

10 YEARS OF RESEARCH

MOULDER CENTER GENERATING A HEALTHY ROI FOR TEMPLE

Ten years ago, Temple University established the Moulder Center for Drug Discovery Research as a hub for further developing the scientific discoveries of faculty members and scientists.

The goals of the centers included facilitating collaboration opportunities with pharmaceutical industry partners and other academic researchers, and moving discoveries made on campus into the broader research community.

Now a decade later, the center has generated a measurable return on Temple's investment.

The center has spun out one company, and is in the process of launching three more. Its researchers have received 12 patents, filed for more than 30, and obtained more than \$7 million in grants and research contracts. Additionally, the center's scientists have published more than 30 scientific articles in peer-reviewed journals and participated in more than 100 presentations and invited lectures.

"We have grown substantially from having only me working in one lab back in 2009 to having a large number of faculty and staff members working in several labs," said Magid Abou-Gharbia, the director of the Moulder Center and Temple's associate dean for research.

Specifically, the Moulder Center now boasts six tenure-track faculty members, one screening manager (in charge of its high throughput screening facility supported by a 50,000-compound library), five scientific staff and one postdoctoral fellow occupying 10 laboratories. The center has another four tenure-track professors and one research professor as associate members.

"I think when you compare the Moulder Center with other academic drug discovery centers, and there are a lot of them, you'd find the team here has done an excellent job with our academic and entrepreneurial mission," said Abou-Gharbia, a former Wyeth scientist.

Magid Abou-Gharbia, in one of Moulder center's labs.



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He said the center would never have gotten off the ground without the support of an \$8.2 million grant from the university.

Those Temple funds were used to:

- ▶ Add tenure-track faculty positions for the center in Temple's Department of Pharmaceutical Sciences;
- ▶ Construct new research laboratories, faculty offices and meeting space;
- ▶ Purchase specialized instruments and equipment; and
- ▶ Create drug discovery initiative awards (\$1 million over four years) to promote collaborative research.

During the past decade on the academic side, Abou-Gharbia said, the center has coordinated collaborative projects with researchers from Temple's School of Medicine, College of Science and Technology and Temple Health System's Fox Chase Cancer Center. The center has also forged research partnerships with Johns Hopkins University and the University of Rochester. Abou-Gharbia said they've also established a visiting scholars program.

"One of the things that makes this center unique is scientists from overseas

come to spend time with us in our labs," Abou-Gharbia said. "We've had one person from Barcelona and two from the Middle East come here."

On the entrepreneurial front, intellectual property the Moulder Center has generated for Temple University has led to the formation of its first spin-out company: Praeventis. The Exxon company is developing an inflammatory bowel disease treatment based on a discovery made by the Temple School of Pharmacy professor's Daniel Canney and Benjamin Blass.

Other intellectual property is the subject of licensing negotiations, including a disease-modifying treatment for type 2 diabetes mellitus, a potential therapy for cerebral palsy, and a novel epigenetic approach to treating cancer.

Abou-Gharbia said the center is hopeful, over the next few years, a drug candidate discovered by one of its team members will advance into human clinical trials. "That's the ultimate goal," he said, "turning translative innovation into effective and safe medicines."

▶ LAB NOTES

MADRIGAL BEGINS LATE-STAGE STUDY OF ITS NASH TREATMENT

Madrigal Pharmaceuticals of Conshohocken began Phase-II clinical trials for its lead new drug candidate, an experimental treatment for a liver condition known as non-alcoholic

steatohepatitis (NASH). Phase-II clinical trials are typically the last hurdle a company must successfully clear before seeking approval of a new drug candidate. Madrigal said its double-blind, placebo-controlled study will be conducted at more than 150 sites in and outside the United States. The

total anticipated enrollment is about 2,000 patients. "We believe there is great potential to achieve statistically significant NASH resolution and liver fibrosis reduction relative to placebo at both the 80- and 100-milligram doses," said Dr. Paul Friedman, CEO of Madrigal.