

**Peristera Paschou**

**February 2024**

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## GENERAL INFORMATION

### A. Education

- 2002-2005** **Diplomate of the American Board of Medical Genetics** (August 2005) - **Clinical Molecular Genetics Specialty**. Yale University School of Medicine, Department of Genetics - Medical Genetics Training Program
- 2002-2005** Postdoctoral Training, Yale University School of Medicine, Department of Genetics (Supervisor: Kenneth K. Kidd)
- 1999-2002** National University of Athens, **PhD** - Research Thesis on **Human Genetics**: “Molecular Determinants of the Etiology and Pathogenesis of Insulin Dependent Diabetes”
- 2001** Institut Pasteur, Paris, Training Fellowship - Study of the Genetics of Type 1 Diabetes Mellitus in Greek families
- 1999-2000** University of Oxford, “Wellcome Trust Centre for Human Genetics” – Training Fellowship - Whole Genome Screening for the Identification of Disease Loci
- 1997-1999** National University of Athens, Faculty of Nursing - MSc  
Dissertation: "Genetic Counseling in Type 1 Diabetes Mellitus"
- 1992-1997** National University of Athens, Faculty of Nursing – BSc

### B. Present Positions

- 2024-present** Head (Interim), Department of Biological Sciences, Purdue University
- 2021-present** Professor, Department of Biological Sciences, Purdue University
- 2019-present** Director of Global Partnerships/Global Academic Committee, College of Science, Purdue University
- 2019-present** Leadership Team Member, [Purdue Institute for Integrative Neuroscience](#)

### C. Previous Positions

- 2019-2023** Associate Dean, College of Science, Purdue University  
Associate Dean for Graduate Education and Strategic Initiatives (2021-2023)  
Associate Dean for Graduate and Online Education (2019-2021)
- 2016-2021** Associate Professor, Purdue University, Department of Biological Sciences
- 2018-2019** Inaugural Frederick Hovde Dean’s Fellow, College of Science, Purdue University
- 2014-2016** Associate Professor of Population Genetics, Democritus University of Thrace, Department of Molecular Biology and Genetics (with Tenure)
- 2010-2014** Assistant Professor of Population Genetics, Democritus University of Thrace, Department of Molecular Biology and Genetics
- 2011** Adjunct Investigator, National Institute of Child Health and Human Development, Bethesda, USA
- 2005-2010** Lecturer in Population Genetics, Democritus University of Thrace, Department of Molecular Biology and Genetics
- 2007** Visiting Scientist, Center for Neurobehavioral Genetics, Medical School, University of California Los Angeles, USA (October 2007)

- 2006** Visiting Specialist, Institute for Human Genetics, University of California San Francisco, USA (June-August, 2006)
- 2003-2005** Postdoctoral Fellow, Department of Genetics, Yale University School of Medicine, USA
- 2002-2003** Postdoctoral Associate, Department of Genetics, Yale University School of Medicine, USA
- 1999-2002** Research Associate, National University of Athens - European Cooperation Project: “Diabetes Prediction and Prevention - DIPP DEMO Project”
- 1997-1999** Research Associate, National University of Athens - European Cooperation Project: “Genomic map of Insulin Dependent Diabetes Mellitus (IDDM)”

#### **D. Awards and Honors**

- 2019** Showalter Faculty Scholar ([Press release](#))
- 2019** University Faculty Scholar, Purdue University (The University Faculty Scholars Program is intended to recognize outstanding mid-career faculty who are on an accelerated path for academic distinction)
- 2015** Latsis Foundation Award – 2015 Scientific Studies by Young Researchers
- 2014** Excellence Career Award – ARISTEIA II – co-funded by Greece and the European Union
- 2010** Platform presentation award, 2010 Hellenic Society for Biochemistry and Molecular Biology meeting, Alexandroupoli, Greece
- 2005** Hellenic Endocrine Society, 1<sup>st</sup> Research Grant Award
- 2004** *Paschou et al. Am J Hum Genet 2004* – selected as one of the “Top Ten papers” in 2004 by the Centre of Excellence for Early Childhood Development in Canada
- 1999** “EURODIAB TIGER: EUROpe and DIAbetes – Type 1 Genetic Epidemiology Resource” – Training Scholarship – Wellcome Trust Centre for Human Genetics, University of Oxford

#### **E. Leadership roles**

##### **Purdue University**

- 2024-present** Interim Head, Department of Biological Sciences
- 2019-2023** Associate Dean, College of Science  
(2021-2023) Associate Dean for Graduate Education & Strategic Initiatives  
(2019-2021) Associate Dean for Online and Graduate Education
- 2019-2023** Co-Chair Integrative Data Science Initiative Curriculum Committee, Purdue University. Dr. Paschou led a campus-wide committee that launched and managed the development of the Purdue [Applications in Data Science undergraduate certificate](#) as part of an initiative to build the [Data Science Education Ecosystem](#) at Purdue.
- 2019-present** Leadership Team Member, [Purdue Institute for Integrative Neuroscience](#)

- 2021-2023** [Emerging Leaders Science Scholars \(ELSS\)](#), **Faculty Director**. Dr. Paschou established and coordinated the ELSS faculty mentoring program, training faculty in inclusive mentorship, creating a mentor community of practice, and supporting success for undergraduate students from under-represented backgrounds at Purdue.
- 2018-2019** **Inaugural Frederick L. Hovde Dean’s Fellow**. The program is designed to provide leadership opportunities to selected faculty. As part of the College leadership team, Fellows’ projects advance critical goals across the college. Dr Paschou focused on expanding the participation of seven departments in the Purdue College of Science in cross-campus Data Science education and research initiatives.

### **Boards of scientific societies**

- 2022-2023** **Chair**– Greater Indiana Society for Neuroscience
- 2014-2017** **Board Member** - European Society for the Study of Tourette Syndrome (ESSTS)
- 2011-2014** **Chair** - European Society for the Study of Tourette Syndrome (ESSTS)
- 2011-2012** **Treasurer** of the Board of Directors - Hellenic Association for Medical Genetics

### **Leadership roles in international cooperation research programs**

- 2017-present** Chair, [ENIGMA-TS International Consortium: Enhancing Neuroimaging Genetics through meta-analysis for Tourette Syndrome](#) (Dr. Paschou coordinates partners across **23 sites and 10 countries from around the world**).
- 2016-present** Steering Committee, [Psychiatric Genomics Consortium, TS/OCD Working Group](#)
- 2021-2023** Outreach Committee Liaison, [Psychiatric Genomics Consortium, TS/OCD Working Group](#)
- 2012-2016** Coordinator, “[TS-EUROTRAIN](#): Interdisciplinary training network for Tourette Syndrome; structuring European Training capacities for neurodevelopmental disorders.” – funded by European Commission - Marie Curie Initial Training Network (**10 sites in six countries**).
- 2011-2015** Work package leader, “[EMTICS: European Multicenter Tics in Children Study](#)” funded by European Commission - FP7-HEALTH (coordinating **19 sites across Europe**).
- 2010-2014** Chair, “[European Network for the Study of Gilles de la Tourette Syndrome](#)” (Multidisciplinary consortium of **200 investigators from 23 European countries** – Funded by *COST – European Cooperation in Science and Technology*).
- 2009-2014** Steering Committee Member of the international research project “GGRI - Gilles de la Tourette Syndrome Genome Wide Association Study Replication Initiative”
- 2008-today** Coordinator of the international research project «Tourette Syndrome Genetics. The Southern and Eastern Europe Initiative» (Scientific network of investigators from **seven European countries** – Funded by the *Tourette Syndrome Association, USA*) (<http://tsgenesee.mbg.duth.gr/>)

### **Academic Leadership - Professional Development**

**2022-2023** ELATES National Leadership Development Program Fellow, [press release](#)

**2018-2019** FLAIR Fellow. Faculty Leadership Academy for Interdisciplinary Research, Purdue Office of Executive Vice President for Research and Partnerships

### **Academic Leadership – Head (Interim) of Purdue Biological Sciences**

**2024-present** Dr Paschou oversees budget and all operations of the largest department in the Life Sciences at Purdue. As the Academic Leader of this unit, she engages with relevant stakeholders within and outside Purdue, and supports success for 1,200 undergraduate students, 150 graduate students, 50 faculty members, and 50 staff members.

### **Academic Leadership - Graduate Studies**

**2023-present** Lead PI - [Alfred P. Sloan Foundation Award: Purdue-Sloan Center for Systemic Change](#) (\$250,000). Dr. Paschou coordinates work across nine departments in the Purdue College of Science and College of Engineering to prepare the successful launch of the Purdue-Sloan Center for Systemic Change. The goal of the program is to pursue a systemic approach towards breaking down barriers to STEM graduate education, expanding equitable access for all, improving student outcomes, supporting student success, and increasing Purdue’s capacity to promote diversity, equity, inclusion, and belonging across all levels of the organization.

**2022-2023** **Establishment of Purdue-Morgan State University 2+3 Dual MS-PhD program in Physics.** Dr Paschou led discussions for the establishment of a partnership between Purdue Department of Physics and Astronomy and the Department of Physics at Morgan State (Historically Black University). She oversaw the development of the Activity Agreement between the two Institutions as well as the approval and launch for a dual degree program that connects the Morgan State MSc in Physics to the Purdue Physics and Astronomy PhD program.

**2022-2023** **Establishment of Purdue-Morgan State University 2+3 Dual MS-PhD program in Computer Science.** Dr Paschou led discussions for the establishment of a partnership between Purdue Department of Computer Science and the Department of Computer Science at Morgan State (Historically Black University). She oversaw the development of the Activity Agreement between the two Institutions and facilitated work towards the launch of a dual degree program that connects the Morgan State MSc in Advanced Computing to the Purdue CS PhD program.

**2022** **Graduate School Student Stipend Task Force** – Dr Paschou served on the University-wide Task Force with a goal to review all data on Purdue graduate minimum stipends and cost of living and recommend potential action plans. This work helped draw attention to the need to increase graduate stipends at Purdue and led to a major investment by Purdue University and historic increase of graduate student stipends across Purdue.

- 2019-2023** **Coordinator of Graduate Curriculum and Academic Policy (GCAP) Committee** (comprised of Graduate Chairs of seven different departments within the College of Science). The committee works on sharing best practices across different departments with a focus on graduate student recruitment and professional development.
- 2019-2023** **Graduate Fellowships** – allocation and management of **budget (\$2 million/year)** for all graduate student fellowships across seven departments in the Purdue College of Science.
- 2019-2023** **Oversight of [Summer Research Opportunity Program \(SROP\)](#) and budget across seven departments at the Purdue College of Science.** SROP is a pathway to graduate education at Purdue University. It is designed to provide equal access and opportunities to underrepresented and diverse students by preparing students for Graduate School by offering eight-week intensive research experiences, and graduate school resources that contribute to student professional and academic growth.
- 2019-2023** **Oversight of [Graduate Diversity Visitation Program \(GDVP\)](#) and budget across seven departments at the Purdue College of Science.** This is a four-day program held each fall semester hosting students from under-represented backgrounds. During the visit, selected students become familiar with Purdue graduate programs, faculty and students. The goal is to encourage students from under-represented backgrounds to pursue graduate education at Purdue.
- 2019-2023** **GEA member** - The Graduate Education for Advancement (GEA) Committee acts as an advisory board to the Dean of the Graduate School on what direction to take on various issues facing Graduate Education for Purdue University as a whole.

### **Academic Leadership - Mentoring**

**2023-present Co-PI - Alfred P. Sloan Foundation Award: [Equitable Pathways to Graduate Education: Sloan PREMMiSS - Partnering in Research Mentoring for Minoritized Students in STEM](#) (\$250,000).** Dr. Paschou oversaw the establishment of a partnership between Purdue University and Chicago State University (Minority Serving Institution). The program brings together Purdue (STEM-focused research-intensive institution) and Chicago State University (urban, Predominantly Black Institution) to establish a joint mentoring framework that equips mentors and students with **increased intercultural competencies**, leading to systemic transformation at both institutions and widening pathways towards graduate education for minoritized students. As part of this project, **Dr. Paschou works closely with Purdue’s Center for Intercultural Learning Mentorship Assessment and Research (CILMAR).**

**2021-2023 [Emerging Leaders Science Scholars \(ELSS\) Program](#), Faculty Director.** The ELSS Program is a signature initiative at Purdue College of Science, aiming to increase recruitment of high achieving students from backgrounds traditionally underserved by higher education institutions and equip students with skills they will need to become the next generation of STEM leaders. The program has led to record high enrollment of students from under-represented

backgrounds at Purdue College of Science. Dr Paschou established and coordinated the Faculty Mentoring component of the program, overseeing 70 ELSS Faculty Mentors, matching of ELSS students to Mentors as well as faculty training in inclusive mentorship. She established a community of practice for ELSS Faculty Mentors, offering a venue for Mentors to share best practices through the “Discussions on Mentoring” series.

### **Academic Leadership – International Partnerships**

**2022-2023** Dr Paschou led discussions between Purdue and four top Universities in Greece as well as the American-Hellenic Chamber of Commerce with a goal to establish joint research and dual academic programs. University-wide agreements were signed by all four Universities and Purdue (National Technical University of Athens, National Kapodistrian University of Athens, University of Patras, Democritus University of Thrace) as well as the American-Hellenic Chamber of Commerce (first MoU for collaboration signed by AmCham with an Higher Education Institution). It is expected that these partnerships will open up pipelines of top talent from Greece to our graduate programs and create opportunities for joint research programs and EU funding for Purdue researchers. [Link to Purdue press release.](#)

**2020** Dr Paschou led Purdue College of Science discussions leading to the signing of an MoU with Egypt’s Ministry of Communications and Information Technology (MCIT). A dual BS/MS program was established, enabling Egyptian students to earn a Professional Master’s degree in Information Security from Purdue Computer Science. [Link to Purdue press release.](#)

**2022-present** **College of Science Faculty Global Ambassadors Program.** Dr. Paschou designed and launched the College of Science Faculty Global Ambassadors Program (first call published in March 2022). Science Faculty Global Ambassadors are meant to increase the international presence and visibility of Purdue CoS research and graduate programs, building connections with partner institutions around the world.

**2019-present** **Director of College of Science Global Partnerships - Global Academic Committee** (College of Science representative) - The GAC consists of representatives from each college across campus who are responsible for global programs and initiatives. Together, the committee members provide the campus with an interdisciplinary and well-rounded approach to global issues, including evaluating the academic merit, potential impact, and risks and benefits of new and ongoing global partnerships and programs, global trends as they affect Purdue’s worldwide activities and profile, and collaborative development of strategic campus-wide global initiatives.



## **Academic Leadership –Partnerships with Minority Serving Institutions**

**2019-present Chicago State University Partnership** (Predominantly Black Institution). Dr Paschou led discussions to establish a partnership between three CoS departments (Biological Sciences, Chemistry, Physics) and CSU. This work led to an [award by the Alfred P. Sloan Foundation](#).

**2022-present Purdue College of Science Partnership with Morgan State University (HBCU).** Dr Paschou led discussions for the establishment of dual degree programs between Morgan State University and College of Science departments of Physics and Astronomy, and Computer Science. These programs (MS-PhD) are meant to create a bridge that connects MS studies at Morgan State to doctoral programs at Purdue and thus help diversify student pipelines for Purdue College of Science.

## **Academic Leadership - Online Education**

**2020-2021 [First Year Online Project](#).** Dr Paschou led the development of high-quality online learning materials for the entire sequence of first year courses in the College of Science (45 courses). She also brought together a community of practice of faculty from across all participating departments who worked together to develop best practices for online learning at Purdue College of Science as well as supporting materials (Brightspace Harmonization template) and guidelines that could be used across Purdue. She then expanded this program in the CoS [launching the Brightspace Harmonization Program across all CoS departments in 2022 and 2023](#).

**2020-2023 Data Science in Finance Online Masters Program** – Dr Paschou oversaw and facilitated the process of launching the program which represents a partnership between the Purdue Department of Statistics and School of Management. This included bringing together multiple stakeholders and overseeing aspects from course design and development and marketing.

**2021-2023 [Cybersecurity Online Masters Program](#)** – Dr Paschou oversaw the launch process, bringing together multiple components and stakeholders and overseeing aspects from course design and development to marketing.

**2022-2023 [Launching Applied Statistics Online Masters Program](#)** – Dr Paschou oversaw the launch process, bringing together multiple components and stakeholders and overseeing aspects from course design and development to marketing.

**2019 Non-Credit online offerings** –Dr. Paschou coordinated the creation of a series of online courses that are meant to prepare students and professionals to integrate [Data Science approaches](#) in their work. These courses have drawn interest from corporate partners including Lilly and Cummins.

## **Academic Leadership – Expanding the Data Science Education Ecosystem at Purdue**

- 2019-2023** Co-Chair Integrative Data Science Initiative Curriculum Committee, Purdue University. Dr. Paschou led a campus-wide committee that launched and managed the development of the Purdue [Applications in Data Science undergraduate certificate](#) as part of an initiative to build the [Data Science Education Ecosystem](#) at Purdue. This included opening paths for students from across Purdue to access the program, irrespective of initial quantitative background. Dr. Paschou coordinated discussions with faculty representatives from all Purdue departments, Academic Advisors, and the Registrar’s Office.
- 2019-2020** Dr Paschou facilitated discussions across departments of CS, Statistics, and Mathematics, to expand [the CoS Data Science major](#) across all three units, providing a tailored experience for incoming students.
- 2019** **Non-Credit online offerings** –Dr. Paschou coordinated the creation of a series of online courses that are meant to prepare students and professionals to integrate [Data Science approaches](#) in their work. These courses have drawn interest from corporate partners including Lilly and Cummins.

### **F. Professional and Scholarly Associations**

- Greater Indiana Chapter Society for Neuroscience (Chair 2022-2023)
- American Society for Human Genetics
- International Society for Psychiatric Genetics
- European Society for the Study of Tourette Syndrome (Chair 2011-2014, Board Member 2014-2017)

## **II. LEARNING**

### **A. Teaching Assignments at Purdue (last 5-7 years only)**

<b>Semester</b>	<b>Year</b>	<b>Course #</b>	<b>Title, Credit, Type</b>	<b>Enroll.</b>	<b>Student Classification.</b>
Fall	2021	BIOL 69500	Neurological and Neuropsychiatric Disorders Lecture/Seminar (2cr)	13	Graduate
Fall	2019	BIOL 69500	Neurological and Neuropsychiatric Disorders Lecture/Seminar (2cr)	13	Graduate
Fall	2018	BIOL 69500	Neurological and Neuropsychiatric Disorders Lecture/Seminar (2cr)	18	Graduate
Fall	2018	BIOL 44400	Human Genetics (2cr), Lecture	50	Junior/Senior
Fall	2017	BIOL 44400	Human Genetics (2cr), Lecture	47	Junior/Senior

## B. Selected Discussion of recently taught Courses

### Human Genetics - BIOL 44400

This is a fascinating time to be studying genetics. The first human genome took billions of dollars, a huge international team of scientists and technicians, and about eight years to complete in 2003. Today, a whole human genome can be sequenced for less than \$1,000 and in about one day. Given the computational and technical ability to handle all these data, our knowledge of human evolution, development and disease now grows by leaps and bounds every year. This course builds on students' foundations in genetics and extends into the study of human genetics. A detailed discussion of the modes of inheritance as well as pathophysiology and clinical phenotype for a broad range of human disorders is covered. Upon completion, students will be able to explain the molecular mechanisms by which genetic information is passed from person to person, how genetic information influences and is influenced by its environment, and how mutations occur and their implications. Students will also be able to discuss the genetics of a broad spectrum of human disorders and how genetic technologies and methods are employed in the diagnosis and treatment of disease as well as in genetics research. The course includes lectures by Prof Paschou as well as student presentations on assigned topics.

### Neurological and Neuropsychiatric Disorders Lecture/Seminar - BIOL 69500

The aim of this multidisciplinary course is to provide graduate students with an understanding of the neurobiological basis, treatment strategies and potential goals for future research for a broad range of disorders affecting the nervous system. Students have the opportunity to benefit from a broad range of expertise from faculty across the Purdue campus. Student presentations cover papers focusing on translational research. Students are exposed to state-of-the-art methodological approaches across different disciplines and fields ranging from biology and genetics to neuroimaging and biotechnology. The course was developed with the support of the Purdue Institute for Integrative Neuroscience.

## C. Other Teaching Experience:

### Department of Molecular Biology and Genetics, Democritus University of Thrace, Greece

Semester/Year	Course	Credit	Enrollment
Fall 2011-2015	Population Genetics (Undergraduate)	5	90
Spring 2011-2016	Genetics (Undergraduate)	6	120
Spring 2014-2016	Bioethics/Clinical Trials (Graduate course)	2	15
Fall 2014-2015	Genomics (Graduate course)	2	15

## D. Other Contributions to Undergraduate Education

- As **Associate Dean at the College of Science**, Dr Paschou coordinated the development of 43 undergraduate courses in online format with a goal to create an online version of the entire first year of curriculum for Science and Engineering students at Purdue University ([First Year Online Project](#)).
- As **Co-Chair of the Integrative Data Science Initiative Curriculum Committee**, Dr Paschou coordinated the launch of the Applications in Data Science Undergraduate Certificate Program and oversaw the Program (2019-2023) which runs across Purdue (400 students currently enrolled). This is a University-wide program aiming to provide foundational knowledge in Data and the opportunity to apply this knowledge in specific application domains.
- As **Associate Dean at the College of Science**, Dr Paschou coordinated discussions on revising the Data Science Major Curriculum at Purdue. This included integration of offerings across three different College of Science Departments (Computer Science, Mathematics and Statistics) and launching three different tracks for the program.
- As **Associate Dean at the College of Science**, Dr Paschou coordinated an agreement of partnership between Purdue Dept of Computer Science and Egypt's Ministry of Communication, Information and Technology to launch a Dual BS/MS degree program in Computer Science and Information Security (August 2020).
- Undergraduate thesis supervisor – 30 students at Democritus University of Thrace, Dept of Molecular Biology and Genetics (see also Undergraduate Students section)

## III. DISCOVERY

### A. Discussion of Research

#### Summary of most significant accomplishments

Dr Paschou works to disentangle the genetic basis of complex disease and understand population genetic structure around the world as it relates to health and the history of the human species. Throughout her academic career, she has established and led multiple large international research consortia and she has been an advocate for interdisciplinary research. Her work has led to discoveries that leverage the strength of genomics towards clinical translation and personalized medicine. Examples of Dr Paschou's most innovative and highest impact scientific contributions include: **(1)** The identification of the first definitive genes for Tourette Syndrome, a neuropsychiatric disorder of childhood that affects up to 1% of the population; **(2)** The development of a novel algorithmic framework that can dissect genetic structure and identify the ancestry and genetic relationships of human populations; **(3)** The discovery of the migration routes undertaken by our ancestors in the Neolithic period as they moved from the Middle East towards Europe bringing with them the knowledge of farming and a new way of life.

In 2019, Dr. Paschou was named a University Faculty Scholar by Purdue University in recognition of her excellent academic trajectory. In the same year, she was named Showalter Faculty Scholar, receiving a distinction by the Ralph W. & Grace M. Showalter Research Trust Fund. Dr Paschou's

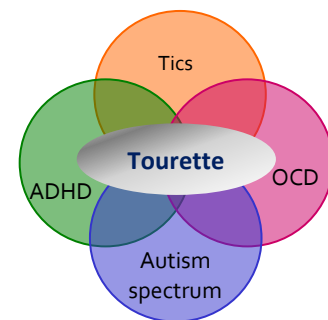
multidisciplinary research has led to more than 85 peer-reviewed scientific publications in Psychiatric Genetics, Population Genetics, and Genetic Epidemiology. Her work has been featured in multiple venues of the popular media, such as BBC and National Geographic. Her papers appear in widely recognized interdisciplinary journals such as Proceedings of National Academy of Sciences (PNAS), Nature Communications, Neuron, and Cell Reports and top ranked scientific journals in genetics such as Molecular Psychiatry, the American Journal of Human Genetics, PLOS Genetics, and Genome Research.

Dr Paschou has been very successful in pursuing international collaborations. She has brought together scientists across different disciplines with an aim to understand the cause of neuropsychiatric disorders of childhood and has led several large-scale international consortia in this direction. For instance, funded by the European Union, she coordinated a COST Action (European Cooperation in Science and Technology) which led to the development of an interdisciplinary network of more than 200 researchers from 23 different countries aiming to elucidate the cause of Tourette Syndrome and identify novel therapies. This program fostered the growth of the European Society for the Study of Tourette Syndrome (ESSTS) and, in recognition of her contributions and strong leadership, Dr Paschou was elected ESSTS Chair and served on the Board of ESSTS Officers from 2010-2017. In 2023 she served as Chair of the Greater Indiana Society for Neuroscience.

### **Discussion of selected research contributions**

#### **1. Elucidating the cause of childhood neurodevelopmental disorders**

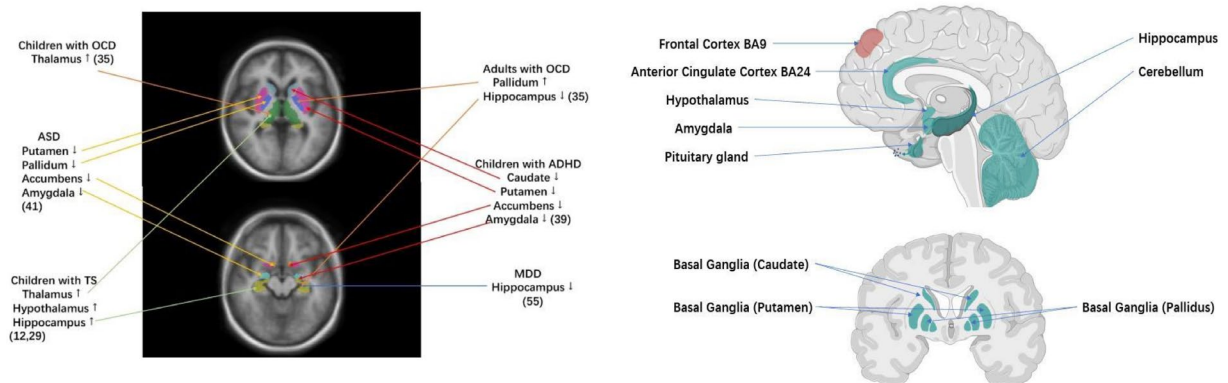
Over the past 20 years, Dr Paschou has been leading efforts to elucidate the genetic basis of multifactorial disorders with a particular focus on neurodevelopmental phenotypes. She has pioneered investigations in the study of the genetic basis of Tourette Syndrome (TS) in multiple populations, implicating multiple novel candidate genes in the etiology of the disorder. TS is an inherited neuropsychiatric disorder of childhood onset, which is characterized by the occurrence of multiple motor and vocal tics and high comorbidity rates with attention deficit hyperactivity disorder and obsessive compulsive disorder. It has long been considered a model disorder to study the parts of the brain that function at the intersection of our traditional concepts of neurology and psychiatry. TS still remains severely underdiagnosed and recent studies report a prevalence of 0.4-1%. It has become clear that it involves a complex genetic background interacting with multiple environmental factors in order to lead to the onset of symptoms. In the Big Data era, novel technologies allow the interrogation of millions of genetic variants in thousands of individuals in order to unravel the genetic background of such complex disorders. Dr Paschou has established and continues to lead multiple large-scale collaborative efforts of multidisciplinary teams of experts aiming to understand the genetic basis of TS, including the most recently funded NINDS consortium aiming to perform a mega-GWAS on more than 12,000 patients. She has also established the Tourette Syndrome Genetics Southern and Eastern Europe Initiative, the genomics



Dr Paschou pioneered studies of Tourette Syndrome, a model neurodevelopmental disorder.

Working Group of the EU-funded European Multicenter Tics in Children Study and the TS Working Group within the worldwide consortium ENIGMA (Enhancing Neuroimaging Genetics through meta-analysis).

Dr Paschou has played a leading role in establishing some of the largest biobanks for TS, including samples and clinical information from thousands of individuals from around the world. She then led genomic analysis of these samples, using genomewide genotyping and genomewide sequencing methods and this work led to the identification of the first definitive genes for TS. For instance, Dr Paschou was a lead author in the largest-impact papers for the genetics of TS, presenting the largest GWAS for TS to date as well as related phenome-wide associations and cross-disorder analysis (Yu et al. 2019, Yang et al. 2021, Tsetsos et al. 2023, Jain et al. 2023). Besides analysis of single nucleotide polymorphisms and GWAS, she also led work to interrogate Copy Number Variants and exome sequencing data in TS. In 2017 she was a leading author in work that appeared in *Neuron*, one of the most influential and relied upon journals in the field of neuroscience; the study reports the largest ever genome scan for TS interrogating copy number variants (CNVs - a type of structural genomic variation) and shows that approximately 1% of TS cases carry a CNV on one of the genes *NRXN1* or *CNTN6* (Huang et al. 2017). These genes are so-called cell adhesion molecules and play important roles in neural network formation. Another example of the high impact of her work on TS is a study that appeared in 2018 in *Cell Reports*, in which Dr Paschou led the whole-genome sequencing analysis of a sample of 800 nuclear families with TS identifying additional novel genes that underlie TS risk (Wang et al. 2018). This was the largest family sample for TS analyzed to date and its study uncovered non-inherited variants (new mutations) in a significant number of patients, implicating the biological pathway that underlies cell polarity. The identified genes point to spatial differences in shape, structure, and function within a cell, and are fundamental for special functions such as the transmission of signals in one direction in neurons.



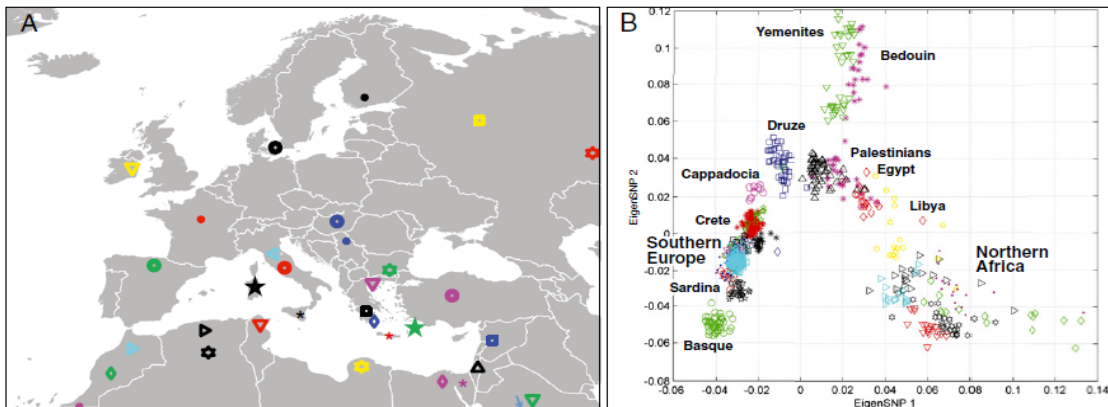
Dr. Paschou integrates neuroimaging and genetic data to study brain structure and function in Tourette Syndrome and related disorders. The image shows brain regions that have been previously involved in TS, ADHD, OCD, and ASD (left) and tissue-enrichment of top GWAS hits from TS-ADHD-ASD (top right) and TS-OCD (bottom-right) cross-disorder GWAS (Paschou et al. 2022).

In collaboration with colleagues from around the world, Dr Paschou continues to work towards the ultimate goal of identification of novel targets for drug treatment and psychotherapy in TS seeking to improve management of the disorder and increase the quality of life for patients and their families.



She is currently leading an effort (NINDS R01 – MPI Paschou) to study an unprecedented sample of 12,000 patients with TS from around the world and she recently established the ENIGMA-TS working group with 23 collaborating sites aiming to bring together neuroimaging and genetic datasets in order to understand brain structure and function in TS. This effort is now supported by an additional R01 award to Dr Paschou.

## **2. Selected research contributions - Uncovering ancient migration routes of human populations**



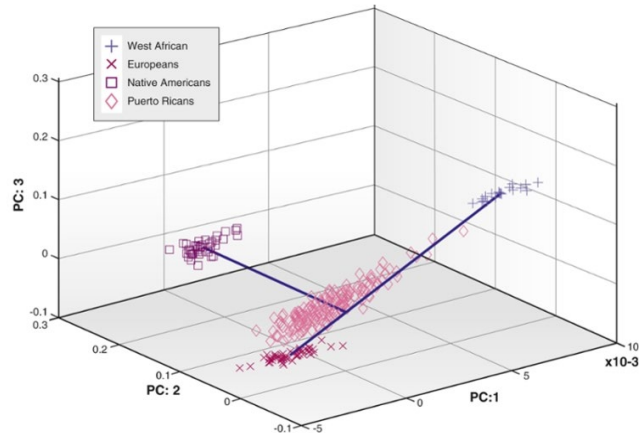
In Paschou et al 2014 (PNAS), Dr Paschou studied samples from 32 populations from around the Mediterranean basin (A) showing that the islands of the Aegean are a bridge that connects gene flow from Anatolia to Southern Europe (B. Projection on top principal components of 75,000 genetic markers from 32 populations). This was contrary to the common belief that our ancestors mainly migrated through land from the Near East towards Europe.

The study of population genetic structure can be applied to the discovery of disease genes as shown in the examples of Dr Paschou's research earlier here, but it can also elucidate the history of our species. Dr Paschou worked together with renowned geneticist George Stamatoyannopoulos (who performed the first large-scale molecular geographical survey of a genetic trait, revealing the relationship between malaria and both thalassemia and sickle cell traits) to build an important biobank documenting population genetic diversity at a fine scale around the Mediterranean basin. Working at the intersection of genomics and data science, Dr Paschou analyzed genomewide data from this sample leading to high impact papers that attracted great publicity and were featured in multiple media outlets (e.g., NBC, BBC, National Geographic, Le Figaro). In work that appeared in Nature Communications (Hughes et al. 2013), using state of the art statistical methodologies, Dr Paschou contributed significantly in addressing the question of the origin of the ancient Minoan population by analyzing mitochondrial DNA from Minoan osseous remains from Crete. Refuting the hypothesis of Sir Arthur Evans, who proposed a North African origin of the Minoans, the study showed that, in fact, the Minoans bear the greatest genetic relationship to Neolithic and modern populations from Europe. In work that appeared in the leading interdisciplinary journal PNAS (again attracting considerable attention from the scientific community and the popular media), Dr Paschou addressed the long-debated question of the Neolithic colonization of Europe by farmers from the Near East (Paschou et al. 2014). Using sophisticated techniques, she observed a striking structure correlating genes with geography around the Mediterranean Sea and showed that the first farmers

migrating from Anatolia (what is today Syria and Palestine) to Europe via a maritime route, with the Aegean islands acting as a bridge that connected Near East to Southern Europe.

### **3. Selected research contributions - Uncovering population genetic structure and individual ancestry**

In highly cited work, Dr Paschou led a series of papers on the selection of genetic markers that can be used to identify the origin of individuals and dissect population genetic structure. Her work has important impact in clinical studies, forensics and population genetics and has also been transferred to the fields of biotechnology, with possible use for instance in the study of economically important traits, breeding programs, efforts to conserve biodiversity, and the traceability of breed-specific branded products. For example, Dr Paschou's paper on PCA-correlated SNPs, which appeared in PLOS Genetics, is an example of interdisciplinary research, at the interface of Genetics and Computer Science (Paschou et al. 2007). Based on Principal Components Analysis Dr Paschou developed a novel algorithm that could be applied on genomewide datasets for the selection of a small subset of ancestry informative markers that can be used to discriminate different populations. Most recently, Dr Paschou, in collaboration with colleagues from Purdue Dept of Computer Science and in work that was led by a PhD student she co-advised (Co-Chair of committee) she published a novel software tool, TeraPCA, a C++ implementation of the Randomized Subspace Iteration method to perform Principal Component Analysis of large-scale datasets of millions of individuals over millions of genetic markers (Bose et al. 2019). Such tools are of great significance in the Big Data era allowing the biobank-scale analysis of genomic data.



Top three principal components of genomewide data showing ancestry contributions in an admixed Puerto Rican population (Paschou et al PLoS Genetics, 2007). This figure is also used in Thompson & Thompson's Genetics in Medicine 8<sup>th</sup> edition, a classic reference textbook in the field.

### **Popular Press (selected press-releases discussing Dr Paschou's work)**

#### **ENIGMA-Tourette Syndrome**

- May 2022 – [Purdue press release](#) - Largest worldwide Tourette syndrome genetics and neuroimaging study also promises insight into related disorders

#### **Population genetic structure in India**

- January 2021 – [Purdue press release](#) – New study links India's genetic diversity to language not geography.
- January 2021 – Language – not Geography major force behind India's gene flow – [Big THINK press release](#)



### **Investigating population genetic structure in a tera scale**

- [TeraPCA](#) (a scalable, multi-threaded software package to compute the top principal components of terascale matrices). [Purdue press-release](#)

### **Understanding the genetic basis of Tourette Syndrome**

- February 2021 – [Spectrum NEWS website](#) – Common variants link Tourette, autism, ADHD, and OCD.
- June 2017 – [Purdue press-release](#): Tourette Syndrome risk increases in people with genetic copy variants
- June 2017 – [NIH press release](#): Researchers uncover genetic gains and losses in Tourette Syndrome
- June 2017 – [Boston Herald](#): Gene find may aid in Tourette treatment
- July 2012 - [European Cooperation in Science and Technology - Newsroom](#): COST Action BM0905 underpins proposal for a Marie Curie Initial Training Network on Tourette Syndrome (TS)
- October 2005 - [Bulletin of the Centre of Excellence for Early Childhood Development, Canada](#): How will Tourette Syndrome strike within a family next?

### **Population genetic structure in the Peloponnese**

- March 2017 – [Vima Science](#): DNA contradicts Fallmerayer theory (one of the top newspapers in Greece – article in Greek).

### **Maritime route of colonization of Europe**

- June 2014 - [New Scientist](#): Island-hopping odyssey brought civilisation to Europe
- June 2014 - [Science](#): First farmers were also sailors
- June 2014 - [National Geographic](#): Ancient Europe colonized by island hoppers?
- June 2014 - [Le Figaro \(in French\)](#): Lire dans l'ADN l'histoire du peuplement
- June 2014 - [Scinexx.de \(in German\)](#): Die ersten Bauern kamen über den Seeweg
- June 2014 - [Le Scienze \(in Italian\)](#): La via insulare delle migrazioni neolitiche
- June 2014 - [TO VIMA \(in Greek\)](#): Farming arrived to Europe by ship
- June 2014 - [TANEA \(in Greek\)](#): The Greek islands as a bridge of evolution

### **MIT Enterprise Forum Greece press-release**

- September 2013 - FORTUNE Greece.com (article in Greek), [Entrepreneurship and Innovation in Genomics and Biotechnology](#)

### **Minoan genetic ancestry press-releases**

- May 2013 - [Nature News](#): Minoan civilization was made in Europe
- May 2013 - [BBC News](#): DNA reveals origin of Greece's ancient Minoan culture
- May 2013 - [NBC News](#): Mysterious Minoans really were European, DNA finds
- May 2013 - [Live Science](#): Mysterious Minoans were European
- May 2013 - [USA Today](#): Europe's first civilization was home grown
- May 2013 - [RPI News](#): DNA analysis unearths origins of Minoans

- May 2013 - [TO VIMA \(in greek\)](#): Modern Cretans descended from the Minoans
- May 2013 - [Proto Thema \(in greek\)](#): Cretans are descendants of the Minoans
- May 2013 - [Kriti TV \(in greek\)](#): Minoans were the first Europeans

### **PCA-correlated SNPs and population structure press-releases**

- April 2008 - [Yahoo! News](#): Computer program reveals anyone's ancestry
- April 2008 - [LiveScience](#) and NSF: Computer program reveals anyone's ancestry
- August 2008 – [ScienceDaily](#): Pinpointing genetic variations in European Americans
- September 2007 - [ScienceDaily](#): Tracing your ancestry:
- September 2007 – [Scitizen article](#): DNA markers and computer science methodology can be used to trace individual ancestry

### **B. Publications**

\* indicates primary author, Paschou lab author codes: <sup>P</sup> Post-Doctoral; <sup>G</sup> Graduate student; <sup>U</sup> Undergraduate student; <sup>H</sup> Highschool student.

Dr. Paschou has published in the following journals listed in order of the most recent impact factor: *Science* (IF 37.2), *Cell* (IF:36.21), *Neuron* (IF: 13.97), *Am J Psychiatry* (IF: 13.4), *Mol Psychiatry* (IF: 13.20), *Nature Communications* (IF: 12.12), *Biological Psychiatry* (IF: 12.09), *Genome Research* (IF: 11.35), *Molecular Biology and Evolution* (IF: 11.06), *Annals of Neurology* (IF: 9.89), *Proceedings of the National Academy of Sciences USA* (IF: 9.66), *Am J Hum Genet* (IF: 9.02), *Neurology* (IF:8.32), *Cell Reports* (IF: 8.28), *Neurosci Biobehav Rev* (IF: 8.23), *Nat Rev Dis Primers* (IF: 6.39), *PLoS Genetics* (IF: 6.10), *J Med Genet* (IF: 5.45), *Neurobiol Aging* (IF: 5.15), *Human Genetics* (IF: 4.64), *Am J Med Genet* (IF: 4.44), *Eur J Hum Genet* (IF: 4.35), *Pharmacogenomics* (IF: 3.85), *Genes Brain Behav* (IF: 3.74), *Front Neurosci* (IF: 3.56), *Front Psychiatry* (IF: 3.53), *Cytokine* (IF: 3.49), *Eur Child Adolesc Psychiatry* (IF: 3.34), *Diabetes Metab Res Rev* (IF: 3.26), *Spine J* (IF: 3.02), *PLoS ONE* (IF: 2.80), *Diab Vasc Dis Res* (IF: 2.5), *BMC Bioinformatics* (IF: 2.45), *Int J Legal Med* (IF: 2.38), *Biological Journal of the Linnean Society* (IF: 2.29), *Annals of Human Genetics* (IF: 1.66), *Int Urol Nephrol* (IF: 1.56), *Twin Res Hum Genet* (IF:1.31), *Behav Neurol* (IF: 1.31), *Journal of Pediatric Endocrinology and Metabolism* (IF: 1.23)

Based on Google Scholar Report February 12, 2024:

Total number of citations: 7,249

h-index: 38

i10-index: 63

Total number of peer-reviewed publications: 87

Complete list of published work available on PubMed in MyBibliography (use link below)

<https://pubmed.ncbi.nlm.nih.gov/?term=paschou+p&sort=date>

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## 2. In Press

NA

## 3. Submitted – available as pre-print

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## 4. Book Chapters

1. Sarah B. Abdallah, Evan Realbuto, Mary O. Kaka, Kelly Yang, Apostolia Topaloudi, **Peristera Paschou**, Jeremiah M. Scharf, and Thomas V. Fernandez (2022). In International Review of Movement Disorders - . Lavoie and Cavanna Editors, Elsevier – Academic Press.

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### **5. Abstracts (conference presentations)**

1. Guo Y., Zhao B, Paschou P., *Phenotypic and genetic relationships between physical activity, sleep, and brain health*. Poster Presentation, Presented at the American Society of Human Genetics 2022 Annual Meeting, Oct. 2022, Los Angeles, CA
2. Jain, P., Miller-Fleming, T., Topaloudi, A.,..., Davis, L., Paschou, P., *Polygenic Risk score - based phenome wide association study for Tourette's Syndrome*. Poster Presentation, Presented at: Annual Meeting of The American Society of Human Genetics 2022 Annual Meeting, Oct. 2022. Los Angeles, CA
3. Jin Y., Paschou P., *Single-Cell RNA-Seq reveals the connections of amyloid-beta and cell death pathways*. Poster Presentation, Presented at the American Society of Human Genetics 2022 Annual Meeting, Oct. 2022, Los Angeles, CA
4. Kaka, M., Jain, P., Topaloudi A., Paschou P., *Exploring genome-wide association results for neuroticism as a proxy for mental health disorders in individuals of African ancestry*. Poster Presentation, Presented at: Annual Meeting of The American Society of Human Genetics 2022 Annual Meeting, Oct. 2022. Los Angeles, CA
5. Shekhar, S., Jain, P., Paschou P., *Transcriptome-wide and Proteome-wide association study of Tourette's Syndrome*. Poster Presentation, Presented at: American Society of Human Genetics 2022 Annual Meeting, Oct. 2022. Los Angeles, CA
6. Topaloudi, A., Jain, P., Martinez, M., Paschou P., *A comparative PRS-PheWAS of 14 autoimmune disorders, and their genetic relationship*. Poster Presentation, Presented at: American Society of Human Genetics 2022 Annual Meeting, Oct. 2022. Los Angeles, CA

7. Jain, P., Miller-Fleming, T., Topaloudi, A.,..., Davis, L., Paschou, P., *Polygenic Risk score - based phenome wide association study for Tourette's Syndrome*. Virtual Poster Presentation, Presented at: Greater Indiana Society for Neuroscience. Apr. 2022. Virtual meeting
8. Jin, Y., Drineas, P., Rochet, C., Paschou, P., Alzheimer's Disease Neuroimaging Initiative (ADNI), *Interaction of Genetics, Amyloid-beta and Inflammation as Mediators of Brain Structure Change in Cognitive Decline*. Virtual Poster Presentation, Presented at: Greater Indiana Society for Neuroscience. Apr. 2022. Virtual meeting
9. Kaka, M., Jain, P., Topaloudi, A., Paschou, P., *Genome-Wide Association Studies of Neuroticism in Individuals of African Ancestry*. Virtual Poster Presentation, Presented at: Greater Indiana Society for Neuroscience. Apr. 2022. Virtual meeting
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12. J. Bryant, G. Reynolds, A. Topaloudi, P. Paschou. Genetic Similarities and Differences between Autoimmune Disorders. Virtual poster presentation. Presented at: Indiana Clinical and Translational Science (CTSI) Retreat, February 2022. Virtual meeting
13. B. Raber, Y. Jin, P. Paschou. Mendelian randomization of inflammatory biomarkers involving RAGE and COX-2 pathway for cognitive decline. Virtual poster presentation. Presented at: Indiana Clinical and Translational Science (CTSI) Retreat, February 2022. Virtual meeting
14. Y. Jin, P. Drineas, P. Paschou. Concordance of genetic variants that affects 12-months change in inflammatory and amyloid-beta biomarkers and that also influences neuroimaging biomarker changes. Virtual poster presentation. Presented at: Indiana Clinical and Translational Science (CTSI) Retreat, February 2022. Virtual meeting
15. P. Jain, M. Burch, M. Martinez, P. Drineas, P. Paschou. Determining the Genetic risk of Complex Disorders in Global populations. Virtual poster presentation. Presented at: American Society of Human Genetics 2021 Annual Meeting. October 2021. Virtual meeting
16. Y. Jin, P. Drineas, P. Paschou. Concordance of genetic variants that affects 12-months change in inflammatory and amyloid-beta biomarkers and that also influences neuroimaging biomarker changes. Virtual poster presentation. Poster presented at: American Society of Human Genetics 2021 Annual Meeting, October 2021. Virtual meeting
17. A. Topaloudi, Z. Zagoriti, A. Flint, M. Martinez, Z. Yang, F. Tsetsos, Y. Christou, G. Lagoumintzis, E. Yannaki, E. Papanicolaou-Zamba, J. Tzartos, X.i Tsekmekidou, K. Kotsa, E. Maltezos, N. Papanas, D. Papazoglou, P. Passadakis, A. Roumeliotis, S. Roumeliotis, M. Theodoridis, E. Thodis, S. Panagoutsos, J. Yovos, J. Stamatoyannopoulos, K. Poulas, K. Kleopa, S. Tzartos, M. Georgitsi, P. Paschou. A Myasthenia Gravis genomewide association study implicates AGRN as a risk locus. Virtual poster presentation. Presented at: American Society of Human Genetic 2021 Annual Meeting. October 2021. Virtual meeting
18. Z. Yang, P. Paschou, P. Drineas, Reconstructing SNP Allele and Genotype Frequencies from GWAS Summary Statistics. Virtual poster presentation. Presented at: American Society of Human Genetics 2021 Annual Meeting, October 2021, Virtual meeting
19. Y. Zou, Y. Jin, J. Rispoli. Investigating the reliability of Combat for harmonizing diffusion MR images acquired at a single site with multiple echo times. Virtual poster presentation. Poster

- presented at: International Society for Magnetic Resonance in Medicine Conference, May 2021. Virtual meeting
20. M. Martinez, A. Topaloudi, P. Jain, P. Paschou. Application of Polygenic Risk Scores to understand Phenotypic Associations of Neurological Autoimmune Diseases. Virtual poster presentation. Presented at: Purdue Undergraduate Research Conference. April 2021. Virtual meeting
  21. A. Flint , A.Topaloudi , P. Paschou. Key Genetic Contributors to Myasthenia Gravis and Other Autoimmune Disorders. Virtual poster presentation. Presented at: Greater Indiana Society for Neuroscience 2021 Annual Meeting. April 2021. Virtual meeting
  22. M. Martinez, A. Topaloudi, P. Jain, P. Paschou. Application of Polygenic Risk Scores to understand Phenotypic Associations of Neurological Autoimmune Diseases. Virtual poster presentation. Presented at: Greater Indiana Society for Neuroscience 2021 Annual Meeting. April 2021. Virtual meeting
  23. A. Topaloudi, Z. Zagoriti, A. Flint, M. Martinez, Z. Yang, F. Tsetos, Y. Christou, G. Lagoumintzis, E. Yannaki, E. Papanicolaou-Zamba, J. Tzartos, X.i Tsekmekidou, K. Kotsa, E. Maltezos, N. Papanas, D. Papazoglou, P. Passadakis, A. Roumeliotis, S. Roumeliotis, M. Theodoridis, E. Thodis, S. Panagoutsos, J. Yovos, J. Stamatoyannopoulos, K. Poulas, K. Kleopa, S. Tzartos, M. Georgitsi, P. Paschou. A Myasthenia Gravis genomewide association study implicates AGRN as a risk locus. Virtual poster presentation. Presented at: Greater Indiana Society for Neuroscience 2021 Annual Meeting. April 2021. Virtual meeting
  24. Z. Yang, PGC Cross-disorder Working group, P. Paschou, Investigating shared genetic basis across Tourette Syndrome and comorbid neurodevelopmental disorders along the impulsivity-compulsivity spectrum. Virtual poster presentation. Presented at Greater Indiana Society for Neuroscience 2021 Annual Meeting, April 2021, Virtual meeting
  25. A. Flint , A. Topaloudi , P. Paschou. Key Genetic Contributors to Myasthenia Gravis and Other Autoimmune Disorders. Virtual oral presentation. Presented at: Purdue Undergraduate Research Conference. April 2021. Virtual meeting
  26. **Topaloudi A<sup>g</sup>, Tsetos F<sup>g</sup>, Zagoriti Z, Kleopa K, Lagoumintzis G, Zamba-Papanicolaou E, Christou Y, Poulas K, Tzartos S, Georgitsi M<sup>p</sup>, Paschou P.** Identifying the genetic basis of myasthenia gravis through analysis of genome-wide data. Poster presented at: Annual Meeting of the American Society of Human Genetics; 2019 Oct 15-19; Houston, TX
  27. **Yang Z<sup>g</sup>, Bose A<sup>g</sup>, Drineas P, Paschou P.** Methods for genotype-based risk prediction for complex neuropsychiatric disorders. 68<sup>TH</sup> Annual Meeting of The American Society of Human Genetics, October 2018, San Diego, California
  28. **Yang Z<sup>g</sup>, Tsetos F<sup>g</sup>, Paschou P.** Identifying a shared regulatory background for neurodevelopmental disorders through meta-analysis of genomewide association studies. 67th Annual Meeting of The American Society of Human Genetics, October 2017, Orlando, Florida
  29. **Bose A<sup>g</sup>, Kalantzis V, Kontopoulou E, Elkady M<sup>g</sup>, Paschou P, Drineas P.** TeraPCA: A fast and scalable method to study genetic variation in tera-scale genotypes. October 20, 2017. 67th Annual Meeting of the American Society of Human Genetics, Orlando, Florida.
  30. **Bose A<sup>g</sup>, Platt DE, Parida L, Paschou P, Drineas P.** Genetic Variation reveals migrations into the Indian subcontinent and its influence on the Indian society. 66th Annual Meeting of the American Society of Human Genetics, Vancouver, Canada.
  31. **Tsetos F<sup>g</sup>, Koukousi D<sup>u</sup>, Mpampali M<sup>u</sup>, Padmanabhuni SS<sup>g</sup>, Alexander J<sup>g</sup>, Karagiannidis I<sup>g</sup>, Mantzaris D<sup>p</sup>, Georgitsi M<sup>p</sup>, Drineas P, and Paschou P.** “A common genetic basis between

- neurodevelopmental disorders of childhood”. Annual Meeting of the American Society of Human Genetics. Vancouver, Canada, Oct. 18–22, 2016.
32. **Tsetso F<sup>g</sup>, Padmanabhuni SS<sup>g</sup>, Alexander J<sup>g</sup>, Karagiannidis I<sup>g</sup>, Tsifintaris M<sup>u</sup>, Topaloudi A<sup>g</sup>, Mantzaris D<sup>p</sup>, Georgitsi M<sup>p</sup>**, Drineas P, and **Paschou P**. “Meta-analysis of Tourette Syndrome and Attention Deficit Hyperactivity Disorder provides support for a shared genetic basis”. 9th European Conference on Tourette Syndrome and Tic Disorders. Warsaw, Poland, June 8–11, 2016.
  33. **Alexander J<sup>g</sup>, Potamianou H<sup>u</sup>**, Xing J, Deng L, Sandor P, Barr C, Tischfield J, **Georgitsi M<sup>p</sup>**, Drineas P, Heiman GA, and **Paschou P**. “Variant Ranker: a Web-Tool to Rank Genomic Data According to Functional Significance; Application on a Tourette Syndrome Next Generation Sequencing Dataset”. 9th European Conference on Tourette Syndrome and Tic Disorders. Warsaw, Poland, June 8–11, 2016.
  34. **Houssari R<sup>u</sup>, Padmanabhuni SS<sup>g</sup>**, Bertelsen B, Esserlind AL, Olesen J, Werge T, Hansen TF, **Tsetso F<sup>g</sup>, Paschou P**, Tumer Z. “Investigation of SNP rs2060546 immediately upstream to NTN4 in a Danish Gilles de la Tourette syndrome cohort”. 9th European Conference on Tourette Syndrome and Tic Disorders. Warsaw, Poland, June 8–11, 2016.
  35. **Tsetso F<sup>g</sup>, Alexander J<sup>g</sup>**, Yu D, Sul JH, Coppola G, Zelaya I, Drineas P, GGRI, TSAICG, Mathews C, Scharf JM, and **Paschou, P**. “Pathway analysis of genome-wide SNP data for Gilles de la Tourette Syndrome shows enrichment in genes expressed in nervous system tissues”. World Congress of Psychiatric Genetics. Toronto, Canada, Oct. 16–20, 2015.
  36. **Tsetso F<sup>g</sup>, Alexander J<sup>g</sup>**, Yu D, Sul JH, Coppola G, Zelaya I, Drineas P, GGRI, TSAICG, Mathews C, Scharf JM, and **Paschou, P**. “Pathway analysis of genome-wide SNP data for Gilles de la Tourette Syndrome shows enrichment in genes expressed in nervous system tissues”. Annual Meeting of the American Society of Human Genetics. Baltimore, MD, USA, Oct. 6–10, 2015.
  37. Scharf JM, TSAICG, GGRI, and TIC Genetic. “An international, collaborative genome-wide association study of Tourette Syndrome in 14,000 individuals identifies a non-coding RNA expressed early in human brain development as a TS susceptibility gene”. Annual Meeting of the American Society of Human Genetics. Baltimore, MD, USA, Oct. 6–10, 2015.
  38. Plantinga AM, **Tsetso F<sup>g</sup>, Paschou, P**, Drineas P, Browning BL, Stamatoyannopoulos G. “Identity by descent analysis reveals fine-scale population structure in Crete”. Annual Meeting of the American Society of Human Genetics. Baltimore, MD, USA, Oct. 6–10, 2015.
  39. Plantinga AM, **Tsetso F<sup>g</sup>, Paschou, P**, Drineas, P, Browning, BL, Stamatoyannopoulos G. “Identity by descent analysis reveals fine-scale population structure in Crete”. Joint Statistical Meeting. Seattle, WA, USA, Aug. 8–13, 2015.
  40. **Tsetso F<sup>g</sup>, Alexander J<sup>g</sup>, Yu D**, Sul, JH, Coppola G, Zelaya I, Drineas P, GGRI, TSAICG, Mathews C, Scharf JM, and **Paschou, P**. “Pathway Analysis on Genome-wide data for Tourette Syndrome Shows Enrichment in Genes expressed in Nervous System Tissues”. 1st World Congress on Tourette Syndrome and Tic Disorders. London, UK, June 24–26, 2015.
  41. Kovacs GG , **Alexander J<sup>g</sup>**, Kalev O, Mehrabian S, Drineas P, Ströbel T, **Paschou P**. Early onset familial alzheimer-type dementia associated with tauopathy and TDP-43 proteinopathy. 12th International Congress on Alzheimer’s and Parkinson’s Diseases, Nice, March 18-22, 2015.

42. **Tsetsos F<sup>g</sup>**, Yu D, Sul J H, TSAICG, GGRI Consortium, Coppola G, **Paschou P**, Mathews C, Scharf J. A Second Genome Wide Association Study for Tourette Syndrome. Annual Meeting of the European Society for the Study of Tourette Syndrome, Paris, April 25-26, 2014.
43. **Karagiannidis I<sup>g</sup>**, Yu D, GGRI Consortium, **Paschou P**, Mathews C, Scharf J. The Gilles de la Tourette Syndrome GWAS Replication Initiative reveals significant signal of genetic association near the Netrin 4 gene. Annual Meeting of the European Society for the Study of Tourette Syndrome, Paris, April 25-26, 2014.
44. **Alexander J<sup>g</sup>**, **Karagiannidis I<sup>g</sup>**, **Potamianou H<sup>u</sup>**, **Georgitsi M<sup>p</sup>**, Xing J<sup>3</sup>, Sun N, Nasello C, Sandor P, Barr C, Tischfield J, **Paschou P**, Heiman G. Targeted re-sequencing approach of TS candidate genes implicates potentially functional variants in TS etiology. Annual Meeting of the European Society for the Study of Tourette Syndrome, Paris, April 25-26, 2014.
45. **Padmanabhuni SS<sup>g</sup>**, Ander BP, Sharp F, Drineas P, **Paschou P**. Gene expression studies in TS. Annual Meeting of the European Society for the Study of Tourette Syndrome, Paris, April 25-26, 2014.
46. Arranz I, Bertelsen B, Jensen L J, **Paschou P**, Tümer Z. CNV analysis in a large cohort of Tourette syndrome patients from Denmark. Annual Meeting of the European Society for the Study of Tourette Syndrome, Paris, April 25-26, 2014.
47. Bertelsen B, Melchior L, Jensen L R, Groth C, Glenthøj B Y, Rizzo R, Mol Debes N, Skov L, Brøndum-Nielsen K, **Paschou P**, Silahtaroglu A, Tümer Z. Intragenic deletions affecting two alternative IMMP2L transcripts in patients with Tourette syndrome. Annual Meeting of the European Society for the Study of Tourette Syndrome, Paris, April 25-26, 2014.
48. **Karagiannidis I<sup>g</sup>**, **Potamianou H<sup>u</sup>**, Heiman G, Deng L, Xing J, Sun N, Nasello C, Sandor P, Barr C, **Paschou P**. Investigating the role of the Histidine Decarboxylase Gene in Tourette Syndrome etiology. . Annual Meeting of the American Society of Human Genetics, Washington, October 22-26, 2013.
49. **Karagiannidis I<sup>g</sup>**, **Tsetsos F<sup>g</sup>**, **Athousaki A<sup>u</sup>**, **Papagiannakopoulou E<sup>u</sup>**, **Paschou P**. The genetic structure of Tourette syndrome associated genomic regions in worldwide populations. Annual Meeting of the European Society for the Study of Tourette Syndrome, Athens, April 26-27, 2013.
50. **Tsetsos F<sup>g</sup>**, **Trivyzakis G<sup>u</sup>**, **Karaiskos S<sup>u</sup>**, **Ioannou M**, Gkantouna V, Papachatzopoulou A, Patrinos G, Tzimas I, Tsakalidis A, Drineas P, **Paschou P**. Investigating the Genetic Architecture of Diabetes Mellitus Type 2 on a worldwide level: Implications for future research. 64<sup>th</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Athens, 6-8 December 2013.
51. **Karaiskos S<sup>u</sup>**, **Tsetsos F<sup>g</sup>**, **Karagiannidis I<sup>g</sup>**, **Alexander J<sup>g</sup>**, **Georgitsi M<sup>p</sup>**, **Paschou P**. Examining genetic ancestry and demographic history among HapMap phase III populations. 64<sup>th</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Athens, 6-8 December 2013.
52. **Potamianou H<sup>u</sup>**, **Karagiannidis I<sup>g</sup>**, **Georgitsi M<sup>p</sup>**, **Alexander J<sup>u</sup>**, **Karaiskos S<sup>u</sup>**, Heiman G, Deng L, Xing J, Sun N, Nasello C, Sandor P, Barr C, Tischfield J, **Paschou P**. Investigating the role of the Histidine Decarboxylase Gene in Tourette Syndrome etiology. 64<sup>th</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Athens, 6-8 December 2013.

53. **Tsetsos F<sup>g</sup>, Tsekmekidou X<sup>g</sup>**, Kotsa K, Papanas N, Theodoridis M, Papazoglou D, Maltezos E, Vargemezis V, Yovos J, **Paschou P**. The CDKAL1 gene in relation to type 2 diabetes in Greece and the rest of the world. 1<sup>st</sup> Panhellenic Conference of Hellenic Association of Medical Geneticists, 30-31 May, 1 June 2013 (***Best Poster Award***).
54. **Karagiannidis I<sup>g</sup>, Anastasiou Z<sup>u</sup>, Stathias V<sup>u</sup>, Ligda P<sup>u</sup>**, Sandor P, Dehning S, Zill P, Hebebrand J, Noethen M, Lehmkuhl G, Tarnok Z, Barta C, Madruga-Garrido M, Mir P, Szymanska U, Wolanczyk T, Rizzo R, Mueller N, Barr C, **Paschou P**. The Histidine Decarboxylase Gene is associated with Gilles de la Tourette Syndrome in a large sample of trios. XXth World Congress on Psychiatric Genetics, Hamburg, October 14-18, 2012 (***selected as one of the top three poster presentations***).
55. **Trivizakis G<sup>u</sup>, Karagiannidis I<sup>g</sup>**, Papanas N, Theodoridis M, Papazoglou D, Maltezos E, Vargemezis V, **Paschou P**. Worldwide variation across TCF7L2; Implications for Type 2 Diabetes susceptibility around the world. 63<sup>rd</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Heraklion, November 9-11, 2012.
56. **Athousaki A<sup>u</sup>, Liva E<sup>g</sup>, Palikyras S<sup>u</sup>, Potamianou H<sup>u</sup>, Ligda P<sup>u</sup>, Karagiannidis I<sup>g</sup>, Panagiotou I<sup>u</sup>**, Mystakidou K, **Paschou P**. Investigation of the Growth/Differentiation Factor 5 gene in association with osteoarthritis of the spine in the Greek population. 63<sup>rd</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Heraklion, November 9-11, 2012.
57. **Anastasiou Z<sup>u</sup>, Stathias V<sup>u</sup>, Karagiannidis I<sup>p</sup>, Ligda P<sup>u</sup>**, Mir P, TSGeneSEE Consortium, **Paschou P**. Investigation of the HDC gene in association with Gilles de la Tourette Syndrome in populations from Southern and Eastern Europe. 34th Conference of the Hellenic Society for Biological Sciences, Trikala, May 17-19, 2012.
58. **Sotiris G<sup>u</sup>, Aslanidou P<sup>u</sup>, Grigoriou E<sup>u</sup>, Papatiririou S<sup>u</sup>, Stathias V<sup>u</sup>, Karagiannidis I<sup>g</sup>, Paschou P**. The genetic structure of schizophrenia associated genes in 11 HapMap populations. 34th Conference of the Hellenic Society for Biological Sciences, Trikala, May 17-19, 2012.
59. **Paschou P, Karagiannidis I<sup>g</sup>, Aslanidou P<sup>u</sup>, Grigoriou E<sup>u</sup>, Papatiririou V<sup>u</sup>, Stathias V<sup>u</sup>** and the Tourette Syndrome Genetics Southern and Eastern Europe Initiative. Investigating the genetic basis of Tourette Syndrome in European populations. A multinational initiative. XIXth World Congress on Psychiatric Genetics, Washington, September 10-14, 2011.
60. Horvath A, Alexandre RB, Saloustros E, Wassif C Manning A, **Paschou P**, Briasoulis P, Sigh S, Epstein J, Levi I, Neimela J, Oliveira JB, Carney JA, Porter FD, Stratakis CA. Tumor exome sequencing in patients with isolated bilateral Micronodular Adrenocortical Disease identifies pathogenic somatic and germline mutations. 12th International Congress of Human Genetics, Montreal, October 11-15, 2011.
61. Bowen BMP, Kosmaczewski S, Powers N, **Paschou P**, Speed WC, Gruen JR, Kidd KK. Haplotype Diversity and Linkage Disequilibrium of the Dyslexia Candidate Gene *DCDC2* in 90 Populations: Patterns for Alphabetic and Logographic Languages. 12th International Congress of Human Genetics, Montreal, October 11-15, 2011.
62. **Sotiris G<sup>u</sup>, Karagiannidis I<sup>g</sup>, Stylianopoulou E<sup>g</sup>**, Skavdis G, Grigoriou M, **Paschou P**. The genetic structure of LIM-homeobox genes LHX6 and LHX8 in 11 HapMap populations. 62<sup>nd</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Athens, December 9-11, 2011.



63. **Aslanidou P<sup>u</sup>, Grigoriou E<sup>u</sup>, Stathias V<sup>u</sup>, Papasotiriou S<sup>u</sup>, Karagiannidis I<sup>g</sup>, Paschou P.** Investigation of linkage disequilibrium patterns in schizophrenia susceptibility genes in eleven human populations from around the world. 62<sup>nd</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Athens, December 9-11, 2011.
64. **Karagiannidis I<sup>g</sup>, Tsirigoti A<sup>u</sup>, Stamboliou A<sup>u</sup>, Papadopoulou V<sup>u</sup>,** Manolopoulos VG, Martinis G, Kidd JR, Kidd KK, **Paschou P.** The genetic structure of the Greek population in comparison with the European reference populations from the HapMap project. 61<sup>st</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Alexandroupolis, October 15-17, 2010 (***Platform Presentation Award***).
65. **Paschou P, Karagiannidis I<sup>u</sup>, Tsirigoti A<sup>u</sup>, Stampoliou A<sup>u</sup>, Papadopoulou V<sup>u</sup>,** Manolopoulos VG, Kidd JR, Kidd KK, Drineas P. Evaluation of the HapMap dataset as reference for the Greek population. 60<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Washington, November 2-6, 2010.
66. **Paschou P** and the Tourette Syndrome Genetics Southern and Eastern Europe Initiative. Pan-European Initiatives for the study of the genetics of Tourette Syndrome. XVIII<sup>th</sup> World Congress on Psychiatric Genetics, Athens, October 3-7, 2010.
67. Tsirigoti A, Karagiannidis I, Papadopoulou V, Stampoliou A, Papanas N, Yavropoulou M, Yovos I, Vargemezis V, **Paschou P.** Studying the genetic basis of type 2 diabetes mellitus in the Greek population. 60<sup>th</sup> Pan-Hellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, Athens, November 20-22, 2009.
68. **Paschou P, Lewis J<sup>g</sup>,** Drineas P. Accurate inference of individual ancestry geographic coordinates within Europe using small panels of genetic markers, 59<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Honolulu, October 20-24, 2009.
69. **Paschou P, Lewis J<sup>g</sup>, Javed A<sup>g</sup>,** Drineas P. Using principal components analysis to identify candidate genes for natural selection, 58<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Philadelphia, November 11-15, 2008.
70. **Paschou P,** Ziv E, Burchard EG, Choudry S, Rodriguez-Cintron W, Mahoney MW, Drineas P. PCA-correlated SNPs for structure identification in worldwide human populations. 57<sup>th</sup> Annual Meeting of the American Society of Human Genetics, San Diego, October 23-27, 2007.
71. **Paschou P,** Mahoney M, Pakstis A, Kidd JR, Kidd KK, Drineas P. Inter- and intrapopulation genotype reconstruction from tagging SNPs. 56<sup>th</sup> Annual Meeting of the American Society of Human Genetics, New Orleans, October 9-13, 2006.
72. Rivière JB, Díaz-Anzaldúa a, Joobert R, Dion Y, Lespérance P, Richer F, Chouinard S, **Paschou P,** Rouleau GA. Replication of association between Tourette Syndrome and 17q25 in the French Canadian population. XIII<sup>th</sup> World Congress of Psychiatric Genetics, Boston October 14-18, 2005.
73. **Paschou P,** Feng Y, Pakstis AJ, Speed WC, DeMille MM, Kidd JR, Jaghori B, Kurlan R, Pauls DL, Sandor P, Barr CL, Kidd KK. 17q25 is a candidate susceptibility region for TS: a study of two independent family samples. 54<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Toronto, October 26-30, 2004.
74. **Paschou P,** Feng Y, Pakstis AJ, Speed WC, DeMille MM, Kidd JR, Jaghori B, Kurlan R, Pauls DL, Sandor P, Barr CL, Kidd KK. 17q25 implicated in Tourette syndrome susceptibility: a study of two independent family samples. TSA Fourth International Scientific Symposium, Cleveland, June 25-27, 2004.

75. Mukherjee N, **Paschou P**, de Mille M et al. Out of Africa hypothesis supported by variation at CD4 and DM1. *Am J Hum Genet* 73 (Supplement), 2003: 188.
76. **Paschou P**, Pakstis AJ, De Mille M et al. Fine mapping of 17q25 as a candidate susceptibility region for Tourette Syndrome. *Am J Hum Genet* 73 (Supplement), 2003: 535.
77. **Paschou P**, Pakstis AJ, De Mille M et al. 17q25 is supported as a candidate susceptibility locus for Gilles de la Tourette Syndrome. *Am J Med Genet (Neuropsychiatric Genetics)* 122B, 2003: 156.
78. Ilonen J, Sjöroos M, Nejejtsev S, Knip M, Simell O, **Paschou P** et al. Genetic screening for type 1 diabetes risk in Finnish and Greek populations – stepwise typing for three class II HLA loci. *Diabetes Metabolism Research and Reviews* 17 (Suppl 1), 2001: S25.
79. Bartsocas CS, Malamitsi-Puchner A, Sjöroos M, **Paschou P** et al. Greek and Albanian cord blood comparison of IDDM related DQB1 alleles. *Ped Res* 49, 2001: 309.
80. **Paschou P**, Malamitsi-Puchner A, Vazeou A et al. Genetic markers of Type 1 Diabetes and frequency differences in three European populations. 7<sup>th</sup> Panhellenic Diabetology Conference, Heraklion, 29 March- 1 April, 2001.
81. Bozas E, Sjöroos M, **Paschou P** et al. The genetic basis of IDDM incidence differences in Greece and Finland. 22<sup>nd</sup> Conference of the Hellenic Society for Biological Sciences, Skiathos, 25-28 May, 2000.

### C. Invited Lectures

#### 1. National and International Meetings:

1. *Neuroimaging and Genetics in Tourette Syndrome*, 2023 Annual ESSTS Meeting, Brussels, June 2023.
2. *Population Genetic Structure in the Mediterranean*. 4th National Congress of Gene Therapy & Regenerative Medicine, Athens, Greece, May 2019.
3. *The genetic etiology of Tourette Syndrome*. 2018 Annual Meeting of the European Society for the Study of Tourette Syndrome, Copenhagen, Denmark, June 2018
4. *Dissecting the etiology of Tourette Syndrome through large-scale genome, epigenome and transcriptome studies and cross-disorder analysis*. Talk in invited symposium. XXVth World Congress of Psychiatric Genetics, Orlando, USA, October 2017
5. *The genetic basis of Tourette Syndrome: Updates from large scale collaborative efforts*. Invited talk – 9<sup>th</sup> European Conference on Tourette Syndrome and Tic Disorders. Warsaw, Poland, June 2016.
6. *Studying the genetic history of Greek populations: Focus on Crete*. Invited talk - International Meeting «Ancient DNA analysis: A new view in the past», Heraklio, Greece, May, 2016.
7. *Studying the genetic basis of multifactorial disorders*. Invited talk – 66<sup>th</sup> Congress of the Hellenic Society for Biochemistry and Molecular Biology, Athens, 2015.
8. *The genetic etiology of Tourette Syndrome; Updates from large scale collaborative projects*. Plenary talk – 1<sup>st</sup> World Congress on Tourette Syndrome, London, 2015.
9. *Analyzing the genetic structure of Greeks*. 9<sup>th</sup> Panhellenic Conference of Bioscience, Athens, Greece, 2014.
10. *Opportunities and challenges for genomics research in Greece*. MIT Enterprise Forum Greece: Entrepreneurship and Innovation in Genomics and Biotechnology, Athens, Greece, 2013

11. *The genetic basis of Gilles de la Tourette Syndrome*. 2012 Annual Meeting of the European Society for the Study of TS, Catania, Italy, 2012.
12. *Investigating the genetic basis of Tourette Syndrome in European Populations. A multinational initiative*. World Congress for Psychiatric Genetics, Washington DC, 2011.
13. *The genetic structure of the Greek population in comparison with the European reference populations from the HapMap project*. Hellenic Society for Biochemistry and Molecular Biology, Alexandroupoli, Greece, 2010.
14. *The genetic basis of Gilles de la Tourette Syndrome*. XLIII Congress of Polish Psychiatrists, Poznan, Poland, 2010.
15. *Pan-European (and global) initiatives for the study of Tourette Syndrome*. 3rd meeting of the European Society for the Study of Tourette Syndrome, Dresden, Germany, 2009.
16. *An update on the genetics of Tourette Syndrome*. 2nd meeting of the European Society for the Study of Tourette Syndrome, Budapest, Hungary, 2009.
17. *Genetics of Gilles de la Tourette Syndrome*. 6th Panhellenic Conference of Child Psychiatry, Athens, Greece, 2009.
18. Paschou P, Mahoney M, Pakstis A, Kidd JR, Kidd KK, Drineas P. *Inter- and intrapopulation genotype reconstruction from tagging SNPs*. 56th Annual meeting of the American Society of Human Genetics, New Orleans, USA, 2006.
19. *Selection of genetic markers for complex trait association studies in worldwide populations*. 1st International Congress of Clinical and Molecular Genetics, Alexandroupoli, Greece, 2006.

## **2. Regional Meetings and Workshops**

1. *Genetics of Tourette Syndrome*. Invited speaker, Indiana CTSI/Women's Global Health Institute Retreat, February 2023.
2. *The genetics of Mediterranean populations*. Invited talk at G. Stamatoyannopoulos Symposium, Seattle, September 17, 2019
3. *Data Science in Population Genetics*. Workshop on Algorithmic, Mathematical, and Statistical Foundations of Data Science and Applications, Purdue University, April 12-13, 2019
4. *The genetics of Tourette Syndrome*. Invited speaker at Greater Indiana Society for Neuroscience meeting, March 22, 2019
5. *Genetics of Type 2 Diabetes. Current updates*, 26<sup>th</sup> Annual Conference of the Diabetology Society of Northern Greece, Thessaloniki, Greece, 2012
6. *Genetic mapping of multifactorial disease*. Genetics Symposium, National University of Athens, Athens, Greece, 2000.

## **3. Universities and Other Institutions**

1. *Tourette Genetics 2019*. Invited talk at Washington University St Louis, April 29, 2019
2. *Large scale collaborative studies for Tourette Syndrome*. Invited talk at Tourette Association of America Annual Meeting, April 8, 2019
3. *Studying human genomic variation: from population history to health and disease*. Invited speaker - Purdue Ecolunch Seminar Series, West Lafayette, USA, February 2017.
4. *The genetic basis of Gilles de la Tourette Syndrome: Current updates*. Invited talk – University of Catania, School of Medicine, Catania, April, 2016.
5. *Genomic approach to human brain ageing*. Medical University of Vienna, Austria, 2014.
6. *Genetics of Gilles de la Tourette*. Sismanoglio Hospital of Attica, Athens, Greece, 2009.

7. *Population structure via Principal Components Analysis*. University of California Los Angeles, Los Angeles, USA, 2007.
8. *PCA-correlated SNPs for structure identification in human worldwide populations*. Biomedical Research Foundation, Academy of Athens, Athens, Greece, 2007.
9. *Studying Human Genetic Variation*. Dept. of Molecular Biology and Genetics, Democritus University of Thrace, Alexandroupoli, Greece, 2005.
10. *Urea Cycle Disorders*. Clinical Genetics Rounds, Department of Genetics, Yale University, New Haven, USA, 2004.

#### **D. Other Presented Papers**

**Bose A<sup>g</sup>**, Burch MC, Chowdhury A, **Paschou P**, Drineas P, CluStrat: a structure informed clustering strategy for population stratification, International Conference on Research in Computational Molecular Biology (**RECOMB**), Lecture Notes in Computer Science (volume 12074), 2020.

#### **E. Funding**

##### **1. Discussion of Support**

Dr Paschou has been very successful in pursuing international collaborations and attracting funding to support large-scale multi-disciplinary research. She has brought together scientists across different disciplines with an aim to understand the cause of neuropsychiatric disorders of childhood and has led several large-scale international consortia in this direction. She has been supported by the NSF, the NIH, the European Union, and private research foundations. Dr. Paschou's NSF grants support the development of novel algorithms for the study of genomic data. At the same time, her current R01 grants from NINDS and NIMH are of tremendous significance for Tourette Syndrome research. The studies bring together all major consortia in Europe and the US, working on elucidating the genetic basis of this disorder as well as understanding brain structure and function in the largest available datasets to date.

Building up to these efforts, Dr Paschou has a long track-record of successful external funding support from both the European Commission and research advocacy groups and is recognized as a leader in the study of TS genetics. Beginning in 2008, she was supported by the Tourette Association of America, to establish the TSGeneSEE Initiative (Tourette Syndrome Genetics Southern and Eastern Europe Initiative) with participation of researchers and clinicians from seven countries and a common goal to understand the genetic cause of TS. This then sparked the establishment of the "European Network for GTS", an EU-funded COST Action (European Cooperation in Science and Technology) which Dr Paschou coordinated leading to the development of an interdisciplinary network of more than 200 researchers from 23 different countries aiming to elucidate the cause of Tourette Syndrome and identify novel therapies. The collaborative work and the success of this network of researchers established by Dr. Paschou, further expanded to attract 10 million USD in additional support from the European Union (EMTICS - European Multicenter Tics in Children Study) and TS-EUROTRAIN, a Marie Curie Initial Training Network coordinated by Dr Paschou, to train 12 PhD students, across 10 sites from academia and industry as the next generations of

experts in TS. These efforts led to the current NIH-supported multi-site projects that Dr. Paschou coordinates.

Finally, Dr. Paschou has also been successful in gaining important grants from the Alfred P. Sloan Foundation for her work to expand access to STEM graduate education and promote diversity, equity, inclusion, and belonging in STEM higher education institutions. At Purdue, she leads the launch of the Purdue Sloan Center for Systemic Change.

## 2. Funding

### Current Awards:

1. NIMH/ R01: [International collaborative study on Tourette Syndrome genetics and neuroimaging](#)  
Duration of Funding: 3/4/2022- 3/3/2027  
Total amount of award: **\$2,576,012**  
Role: **Principal Investigator (PI)**
2. NINDS/ R01: [Large-scale collaborative genetic and epigenetic studies of Tourette Syndrome](#)  
Duration of Funding: 4/1/2019- 12/31/2024  
Total amount of award: **\$3,928,325**  
Role: **Principal Investigator (MPI)**  
**Purdue subcontract: \$440,000**  
**Taken from NIH website:** The multi-PD/PI option presents an important opportunity for investigators seeking support for projects or activities that require a team science approach. The overarching goal is to maximize the potential of team science efforts in order to be responsive to the challenges and opportunities of the 21st century. The goal is to encourage collaboration among equals when that is the most appropriate way to address a scientific problem. Specific features of the Multiple PD/PI Option include the following:
  - o All PD/Pis share the responsibility and authority for leading and directing the project
  - o Being named contact PD/PI does not imply any particular role within the leadership team
  - o All PD/Pis will be listed on the Notice of Award (NoA)
  - o The role type, “co-PI” is not used by the NIH
3. NSF CISE/IIS/III Core - III: Small. *Randomized Matrix-Sketching Approaches for Estimating Missing Heritability in Massive Population Genetics Datasets*  
Duration of Funding: 9/1/2020-8/31/2024  
Total amount of award: **\$500,000**  
Role: **Principal Investigator**
4. Alfred P. Sloan Foundation: *Purdue Sloan Center for Systemic Change*  
Duration of Funding: 1/1/2024-12/31/2026  
Total amount of award: **\$250,000**  
Role: **Lead Principal Investigator**
5. Alfred P. Sloan Foundation: *Equitable Pathways to Graduate Education: Sloan PReMMiSS - Partnering in Research Mentoring for Minoritized Students in STEM*  
Duration of Funding: 1/1/2023-12/31/2025  
Total amount of award: **\$250,000**  
Role: **Co-PI**

### Past Awards:

6. Purdue Institute for Drug Discovery – Programmatic Areas Research Grants: Identifying Drug Targets and Biomarkers for Alzheimer’s Disease and Related Dementias  
Duration of Funding: 12/1/2021-11/31/2023  
Total amount of award: **\$100,000**  
Role: **Principal Investigator (PI)**
7. NSF CISE/IIS/III Core - III: Small / *Novel Statistical Data Analysis Approaches for Mining Human Genetics Datasets*  
Duration of Funding: 9/1/2017-8/31/2022  
Total amount of award: **\$500,000**  
Role: **Co-Principal Investigator**  
If Co-PI, for how much of the total funding are you directly responsible: **\$300,000**
8. European Committee FP7-HEALTH, Cooperation / *EMTICS: European Multicentre Tics in Children Study*  
Duration of Funding: 2011-2018  
Total amount of award: **€6,000,000**  
Role: **Work Package Leader**  
If Co-PI, for how much of the total funding are you directly responsible: **€746,941**
9. European Committee FP7-PEOPLE, Marie Curie Initial Training Network / *TS-EUROTRAIN: Interdisciplinary training network for Tourette Syndrome; structuring European Training capacities for neurodevelopmental disorders*  
Duration of Funding: 2012-2016  
Total amount of award: **€3,000,000**  
Role: **Principal Investigator**
10. CAREER EXCELLENCE AWARD - ARISTEIA II – Co-funded by Greece and the European Union - *GENOMAP.GR: A genomic reference map of Greece.*  
Duration of Funding: 2014-2015  
Total amount of award: **€165,000**  
Role: **Principal Investigator**
11. Greece-France Bilateral Cooperation Program – Co-funded by Greece and the European Union, NSRF / *TSGeneExpress: Investigating the role of the histaminergic pathway in the etiology of Gilles de la Tourette Syndrome.*  
Duration of Funding: 2014-2015  
Total amount of award: **€30,000**  
Role: **Principal Investigator**
12. THALIS program, Co-funded by Greece and the European Union, NSRF / *The genetic architecture of Type 2 Diabetes Mellitus in the Greek Population.*  
Duration of Funding: 2012-2015  
Total amount of award: **€599,800**  
Role: **Principal Investigator**
13. COST office – European Cooperation in Science and Technology / *Network for the Study of Gilles de la Tourette Syndrome*  
Duration of Funding: 2010-2014  
Total amount of award: **€400,000**  
Role: **Principal Investigator**

14. Tourette Syndrome Association Research Grant Award / TSGeneSEE: *Genetics of Tourette Syndrome. The Southern and Eastern Europe initiative*  
Duration of Funding: 2009-2010  
Total amount of award: **\$74,970**  
Role: **Principal Investigator**
15. Tourette Syndrome Association Research Grant Award / TSGeneSEE: *Genetics of Tourette Syndrome. The Southern and Eastern Europe initiative*  
Duration of Funding: 2008-2009  
Total amount of award: **\$74,655**  
Role: **Principal Investigator**
16. European Commission, Seventh Framework Program / “*Strengthening regional bio research potential in Greece. Department of Molecular Biology and Genetics in Thrace*”  
Duration of Funding: 2008-2012  
Total amount of award: **€1,000,000**  
Role: **Work-Package Deputy Leader**
17. Tourette Syndrome Association Research Grant Award / *Fine mapping of 17q25 and other candidate susceptibility regions for Tourette Syndrome*  
Duration of Funding: 2004-2005  
Total amount of award: **\$73,308**  
Role: **Principal Investigator**
18. Tourette Syndrome Association Fellowship Award / *Fine mapping of 17q25 and other candidate susceptibility regions for Tourette Syndrome*  
Duration of Funding: 2003-2004  
Total amount of award: **\$40,000**  
Role: **Principal Investigator**

#### F. Evidence of Involvement in Graduate Research Program

1 M.S. and 10 Ph.D. Students Graduated, 5 Current Graduate Students, 1 current Post Doctoral Student, 1 current Undergraduate Student Researcher, 2 current High School Student Researchers

<u>Current Graduate Students</u>	<u>Degree/ Date Entered</u>	<u>Past Graduate Students</u>	<u>Date Graduated/ Degree</u>
<b>Major Professor:</b>			
Yin Jin	PhD/2019	Pritesh Jain (Purdue)	2023/PhD
Yuxin Guo	PhD/2021	Apostolia Topaloudi (Purdue)	2022/PhD
Sudhanshu Shekhar	PhD/2017	Zhiyu Yang (Purdue)	2021/PhD
Mary Kaka	PhD/2021	Hanrui Wu (Purdue)	2020/MS
Guangxin Chen	PhD 2022	Aritra Bose (Purdue)	2019/PhD
		Shanmukha Padmanabhuni (DUTH)	2017/PhD
		John Alexander (DUTH)	2016/PhD
		Fotis Tsetsos (DUTH)	2017/PhD
		Iordanis Karagiannidis (DUTH)	2017/PhD
		Emmanuella Vogiatzi (DUTH)	2012/PhD

<u>Current Graduate Students</u>	<u>Degree/ Date Entered</u>	<u>Past Graduate Students</u>	<u>Date Graduated/ Degree</u>
<b>Committee Member:</b>			
Shawna Cook (Purdue)	PhD	Xanthi Tsekmekidou (AUTH)	2020/PhD
Madeline Carpenter (Purdue)	PhD	Electra Stylianopoulou (DUTH)	2015/PhD
Mai Elkady (Purdue)	PhD	Jamey Lewis (RPI)	2010/PhD
Aashish Jain (Purdue)	PhD	Chrysi Tsirikoni	2009/PhD
Myson Burch	PhD	Asif Javed (RPI)	2008/PhD
Eleni Liva (NKUA)	PhD	Loukas Damianos (DUTH)	2007/PhD
Matina Symeonidi (NKUA)	PhD		

<u>Current Postdocs</u>	<u>Past Postdocs</u>
Apostolia Topaloudi (Purdue)	Fotis Tsetsos (Purdue)
	Shanmukha Padmanabhuni (Purdue)
	Yogesh Kumar (Purdue)
	Dimitris Mantzaris (DUTH)
	Marianthi Georgitsi (DUTH)

<u>Current Undergraduates</u>	<u>Past Undergraduates</u>	<u>Date Graduated</u>
Andrea Saravia	Zaid Al Haddadin	2020
	Cameron Locker	2018
	Marguerite Stonier	2018
	Bailey Kamp	2018
	Kate Phelps	2018
	Melanie Martinez	2021
	Sydney Pedigo	2021
	Lauren Holly Price	2021
	Alyssa Flint	2021
	Josie Brown	2023
	Bryce Raber	2023
	Carlos Rubin de Celi	2024

**Current High School students:** Sophia Vlachos, Thenia Vlachos (West Lafayette High School)

**Past High School student:** Grace Reynolds (West Lafayette High School)

### **Undergraduate Diploma Thesis Supervisor**

1. Athina Dritsoula, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2008)
2. Petros Fragoulis, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2008)



3. George Papachristodoulou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2008)
4. Aggeliki Tsirigoti, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2009)
5. Iordanis Karagiannidis, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2009)
6. Vasiliki Papadopoulou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2009)
7. Albiona Stamboliou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2009)
8. Georgia Pantidou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2010)
9. Grigorios Panteloglou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2010)
10. Athina Gianakkara, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2010)
11. Chronis Kemos, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2010)
12. Sotiris Kleidonas, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2011)
13. Zachos Anastasiou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2011)
14. George Sotiris, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2011)
15. Panagiota Ligda, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2011)
16. Eleni Grigoriou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2012)
17. Paraskevi Aslanidou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2012)
18. Spyros Papatotiriou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2012)
19. Vasilis Stathias, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2012)
20. Papagiannakopoulou Eleana, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2013)
21. Asimena Athousaki, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2013)
22. Leyla Basgül – *Erasmus Program – Istanbul Technical University, Dept. of Molecular Biology and Genetics* (2013)
23. Spyros Palikyras, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2013)
24. Hera Potamianou, Dept. of Molecular Biology and Genetics Democritus University of Thrace; co-supervision (2013)
25. Trivyzakakis George, Dept. of Molecular Biology and Genetics Democritus University of Thrace; co-supervision (2013)

26. Stylianos Laparidis, Dept. of Molecular Biology and Genetics Democritus University of Thrace; co-supervision (2014)
27. Spyros Karaiskos, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2014)
28. Kalliopi Ioumpa, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2014)
29. Xanthippi Tsimourtakidou, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2014)
30. Melina Mitsiogianni, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2014)

***Student Awards:***

**Graduate Student Awards**

1. Shanmukha Padmanabhuni - 2018 Purdue Postdoctoral Mentoring Award - Honorable Mention
2. Zhiyu Yang, 2018 Purdue Institute for Integrative Neuroscience Travel Grant to present at the American Society for Human Genetics Annual Meeting
3. Apostolia Topaloudi, 2018 Gerondelis Foundation Scholarship
4. Fotis Tsetsos - 2018 WHBA Fellowship, Fellowship to attend the 7th World Hellenic Biomedical Association Summer School
5. Fotis Tsetsos - 2016 ASHG Travel Award, Travel Award for the 2016 HackSeq Genomics Hackathon in Vancouver, sponsored by ASHG.
6. Fotis Tsetsos - 2016 Fulbright Fellowship, Fellowship for Greek students pursuing graduate studies in the US, The Fulbright Foundation in Greece and U.S.A.
7. Fotis Tsetsos - 2016 WHBA Fellowship, Fellowship to attend the 5th World Hellenic Biomedical Association Summer School
8. Fotis Tsetsos - 2016 Best poster award, Tsetsos et al "Meta-analysis of Tourette Syndrome and Attention Deficit Hyperactivity Disorder provides support for a shared genetic basis", 9th European Conference on Tourette Syndrome and Tic Disorders, Warsaw, Poland.
9. Iordanis Karagiannidis - 2015 Early Career Investigator Award, Award and Travel Grant, International Society of Psychiatric Genetics, Toronto, Canada
10. John Alexander - 2015 Best poster award, Alexander et al "Network analysis on Tourette Syndrome associated genes using genomewide data", 1st World Congress on Tourette Syndrome & Tic Disorders, London, United Kingdom.
11. Karagiannidis I, Anastasiou Z, Stathias V, Ligda P, Sandor P, Dehning S, Zill P, Hebebrand J, Noethen M, Lehmkuhl G, Tarnok Z, Barta C, Madruga-Garrido M, Mir P, Szymanska U, Wolanczyk T, Rizzo R, Mueller N, Barr C, Paschou P. The Histidine Decarboxylase Gene is associated with Gilles de la Tourette Syndrome in a large sample of trios. XXth World Congress on Psychiatric Genetics, Hamburg, October 14-18, 2012 (selected as one of the top three poster presentations).

12. Fotis Tsetsos - 2014 Second best poster award, Tsetsos et al "Investigating the genetic architecture of Diabetes Mellitus type 2 on the Greek population: Implications for future research", 65th Conference of the Hellenic Society of Biochemistry and Molecular Biology, Thessaloniki, Greece.
13. Fotis Tsetsos - 2013 Best poster award, Tsetsos et al "The CDKAL1 gene in association with Diabetes Mellitus Type 2 in Greece and Worldwide", 1st Conference of the Hellenic Association of Medical Geneticists, Athens, Greece.
14. Fotis Tsetsos - 2013 Bodossaki Foundation Scholarship for Doctoral Studies, The Bodossaki Foundation scholarship aims to aid outstanding students, undergraduates and postgraduates, carry on their postgraduate studies in Greece or abroad in various academic fields.
15. John Alexander - 2013 Fellowship by the European Society of Human Genetics, in collaboration with the European School of Genetic Medicine for the Course in Next Generation Sequencing, European Society of Human Genetics
16. Iordanis Karagiannidis - 2012 Early Career Investigator Award, Award and Travel Grant, International Society of Psychiatric Genetics, Hamburg, Germany
17. Iordanis Karagiannidis - 2011 Short Term Scientific Mission Award: COST Action BM0905: "European Network for the Study of Gilles de la Tourette Syndrome", Investigation of the implication of candidate CNVs in the etiology of Tourette Syndrome.
18. Iordanis Karagiannidis - 2010 ESHG Travel Fellowship: Course of the European Society of Human Genetics: Introduction to the Genetic Epidemiology of Complex Diseases, CHU du Kremlin Bicêtre, Faculté de Médecine Paris-Sud, Paris, France

#### **Undergraduate Student Awards**

1. Alyssa Flint – 2021 Undergraduate Honors Research Thesis
2. Anagnostou Foteini - 2014 Third best poster award, Anagnostou et al "Investigating ancient DNA and its implications in the modern human genomic landscape", 65th Conference of the Hellenic Society of Biochemistry and Molecular Biology, Thessaloniki, Greece.
3. Papagiannakopoulou Eleana, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2013) - Short Term Scientific Mission Fellowship (COST Action) to visit the Dept. of Medical Chemistry, Molecular Biology and Pathobiochemistry, Semmelweis University, Hungary
4. Asimenia Athousaki, Dept. of Molecular Biology and Genetics Democritus University of Thrace (2013) – Short Term Scientific Mission Fellowship (COST Action) to visit Applied Human Molecular Genetics Center, Kennedy Center, Denmark

#### **Placements of former graduate students/postdocs**

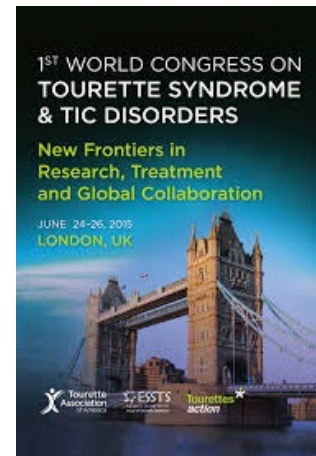
1. Pritesh Jain – Postdoctoral Research Fellow · Nanyang Technological University, Singapore
2. Zhiyu Yang – Postdoctoral Associate, Helsinki University, Finland

3. Aritra Bose – Postdoctoral Associate, Computational Genomics Group at the IBM TJ Watson Research Center.
4. Shanmukha Padmanabhuni – Postdoctoral Associate, University of Pennsylvania, USA
5. Yogesh Kumar – Postdoctoral Associate, Monash University, Australia
6. John Alexander – Postdoctoral Researcher, Sheffield University, UK
7. Fotis Tsetsos – Assistant Professor, Aegean University, Greece
8. Emmanuela Vogiatzi – Hellenic Center for Marine Research, Greece
9. Marianthi Georgitsi – Assistant Professor, Aristotle University of Thessaloniki, Greece

#### IV. ENGAGEMENT

##### A. Discussion of Service

**Raising public awareness about Tourette Syndrome:** Dr Paschou has led multiple efforts aiming to raise awareness for Tourette Syndrome (TS), educate the general public and professionals and combat stigmatization of TS patients. Funded by the European Union, she coordinated a COST Action (European Cooperation in Science and Technology) which led to the development of an interdisciplinary network of more than 200 researchers from 23 different countries aiming to elucidate the cause of Tourette Syndrome and identify novel therapies. This program fostered the growth of the European Society for the Study of Tourette Syndrome (ESSTS) and, in recognition of her contributions and strong leadership, Dr Paschou was elected ESSTS Chair and served on the Board of ESSTS Officers from 2010-2017. From this position, she led from 2010-2017 the organization of the annual meeting of ESSTS, the largest annual scientific and networking event for Tourette Syndrome. She was also one of the initiators of the 1<sup>st</sup> World Congress for Tourette Syndrome which was held in London in 2015, bringing together researchers from the European Society for the Study of Tourette Syndrome with counterparts from the USA, Canada, and Asia. As Chair of the European Society for the Study of Tourette Syndrome she organized multiple training schools, seminars and educational workshops targeting neuroscientists, but also clinicians. She was involved in the organization of several events aiming to promote the standardization and harmonization of practices for the study and clinical management of TS across Europe. Such events led to the publication of best practice guidelines for the diagnosis and management of Tourette Syndrome. From the position of ESSTS Chair, she also launched the annual international meeting of Tourette Syndrome Support and Advocacy Groups bringing together patient groups from across Europe. As coordinator of the Marie Curie Initial Training Network TS-EUROTRAIN she was the editor of a quarterly newsletter providing updates on TS research to the general public. Importantly, she was



Dr Paschou was an inspirer and Co-Chair of the Steering Committee for the 1<sup>st</sup> World Congress on Tourette Syndrome and Tic Disorders

among the inspirers of the European Tourette Day, celebrated to motivate TS awareness on June 7 of every year.

**Engagement activities at Purdue:** At Purdue University, Dr Paschou continues to participate in and indeed lead multiple service and engagement activities. In 2023, as Chair of the Greater Indiana Society for Neuroscience, she brought the annual meeting of the Society to Purdue, providing an opportunity for neuroscientists across Indiana to share research findings and network. She participates in multiple committees at the College, Department, and University levels, and supports efforts to engage with the local community. For instance, she was a speaker at an event organized by the Department of Biological Sciences aiming to present to students from local high schools, opportunities for careers in the Biological Sciences. As part of the Data Science Initiative Dr Paschou coordinated the development of the online Data Science Connector Modules, a core of eight fundamental data science courses which are delivered online with a goal to prepare graduate students across Purdue and beyond to leverage Big Data and undertake Data Science related research as part of their graduate studies. She was appointed by the Provost’s Office as Co-Chair of the Integrative Data Science Initiative Curriculum committee, bringing together representatives from all Purdue Colleges to discuss how to expand the Data Science Education Ecosystem within Purdue. As part of this program, she coordinated the launch of the “Applications in Data Science” undergraduate certificate program, aiming to provide students across Purdue with foundational skills in Data Science and provide opportunities to apply this knowledge in different domains. These efforts are part of Purdue’s strategic plan to promote Data Science literacy and foster a training environment for Citizen Data Scientists within Purdue.

## **B. Department**

**2024-present** Head (Interim), Department of Biological Sciences, Purdue University  
**2019-2020** Faculty Search Committee – College of Science cluster hire – Data Science/Applications in the Life Sciences  
**2017-2018** Search Committee – Vector Ecologist position  
**2016-2021** Inclusion Diversity and Equity Committee  
**2017-today** Honors Committee  
**2016-today** Promotions Primary Committee  
**2016-today** Neurobiology & Physiology Research Area  
**2016-today** Structural and Computational Biology and Biophysics Research Area

## **C. College of Science**

**2023-2024** Cluster hire Search Committee – Social, Behavioral, and Statistical Genomics  
**2022-2023** Cluster hire search Committee – Social Genomics  
**2019-2020** Faculty Search Committee – College-wide Data Science cluster hire  
**2017-2019** Elected Faculty Council Member  
**2018-2019** Undergraduate Curriculum Committee  
**2017-today** Graduate Curriculum and Academic Policy

## **D. University Committee Service**

**2018-2021** Showalter Research Awards Reviewer  
**2019-2023** IDSI Curriculum Committee Co-Chair

## **E. Professional**

### **1. Grant Review**

**2023** Study Section Standing Member – General Health and Disease – NIH (three-year tenure)  
**2022** Reviewer – NIH Review Panel - Biodata Management and Analysis Study Section  
**2021** Reviewer- ZRG1 BBBP-S02 Member Conflict SEP: Child Psychopathology and Developmental Disabilities (CPDD)  
**2021** Reviewer - SEP/Scientific Review Group 2021/10 ZRG1 GGG-F (03) M  
**2020** Reviewer – General Health and Disease Study Section, NINDS  
**2019** Reviewer - NINDS Special Emphasis Panel (SEP) - R13 conference grant applications  
**2014** Reviewer - European Commission, call Horizon 2020-PHC-2014-two-stage-Stage 1  
**2014** Reviewer - European Commission, call Horizon 2020-PHC-2014-two-stage-Stage 2  
**2015** Reviewer - European Commission, call Horizon 2020-PHC-2015-two-stage-Stage 1

### **2. Editorial Boards**

**2022-present** Editorial Board Member – Scientific Reports  
**2022-present** Associate Editor – Frontiers in Genetics  
**2015** Editor – [Frontiers Research Topic: The Genetic Basis and Neurobiology of Tourette Syndrome \(33 articles included\)](#)  
**2012-present** Academic Editor - PLOS ONE  
**2011-present** Review Editor - Frontiers in Evolutionary and Population Genetics  
**2009-2015** Academic Editor - Journal of Medical Genetics

### **3. Reviewed Manuscripts (list below just shows some examples):**

1. American Journal of Human Genetics
2. Journal of Medical Genetics
3. Molecular Biology and Evolution
4. PLOS ONE
5. Annals of Human Genetics
6. American Journal of Medical Genetics
7. Journal of Human Genetics
8. American Journal of Psychiatry
9. Bioinformatics
10. Briefings in Bioinformatics
11. Molecular Ecology Resources
12. Archives of Oral Biology
13. British Journal of Clinical Pharmacology
14. European Child and Adolescent Psychiatry Journal
15. Frontiers in Neuroscience
16. Frontiers in Psychiatry

## F. Diversity Activities

**Bringing Systemic Change in STEM Higher Education:** Dr. Paschou is a strong advocate of diversity as a driver of excellence, success, and growth for all and has led multiple efforts to promote diversity, equity, inclusion and belonging in STEM Higher Education. With support from the Alfred P. Sloan Foundation, she currently leads the launch of the Purdue Sloan Center for Systemic Change. As part of this program, Dr. Paschou coordinates work across nine departments in the Purdue College of Science and College of Engineering to break down barriers to STEM graduate education, expand equitable access for all, improve student outcomes, support student success, and increase Purdue's capacity to promote diversity, equity, inclusion, and belonging across all levels of the organization.

**Partnerships with Minority Serving Institutions:** From the position of Associate Dean for Graduate Education (2019-2023), Dr Paschou coordinated activities across the Purdue College of Science aiming to increase diversity within the graduate student population as well as promote inclusion and equity. She has played a leading role in **establishing partnerships between Purdue College of Science and Minority Serving Institutions** with a goal to broaden pathways towards STEM Graduate Education for students who have been minoritized and historically underserved by Higher Education Institutions. For instance, she initiated a partnership with Chicago State University, a Predominantly Black Institution, successfully pursuing funding from the Sloan Foundation to build a bridge program and joint mentorship program between Purdue and CSU. She also helped lead discussions between the Purdue College of Science and the School of Computer, Mathematical & Natural Sciences at Morgan State University (HBCU) moving towards the establishment of a dual degree program that will act as a bridge for Morgan State students towards Purdue graduate programs, expanding access to STEM graduate education.

**Building a Mentoring Program for High-Achieving Students from Under-Served Populations:** Dr Paschou served as Faculty Director for the College of Science Emerging Leaders Scholars program which is meant to recruit high achieving students from historically under-served groups and offer them a unique learning experience that will pave their way to success. Students receive a scholarship as well as intensive mentoring from peers and faculty and opportunities for study abroad, undergraduate research and internships. The program was launched as a pilot in 2020, attracting record numbers of students (88 students across seven departments) and is now expanded across multiple Purdue Colleges. As Faculty Director, Dr Paschou established and overseaw the faculty mentoring framework of the program and led faculty training in culturally aware mentoring in coordination with the Office of Diversity within the College of Science and the Provost's office for Equity and Diversity. This included a series of guided discussions with faculty mentors focused on mentorship development and sharing of best practices. Her work set the foundation for a community of practice that fosters mentoring at Purdue and motivates faculty to actively engage in the mentoring process which can be life-changing for both the mentor and the mentee.



**Diversifying Graduate Student Pipelines:** As Associate Dean for Graduate Education Dr Paschou led multiple additional activities and initiatives with a goal to increase diversity and foster a welcoming environment at Purdue. She helped coordinate the organization of the Graduate Diversity Visitation Program, with students from under-represented minorities visiting the College of Science. She also coordinated an effort across all College of Science Departments to increase the pool of applicants from under-represented groups across our graduate programs through targeted recruitment efforts. She launched a series of workshops on Intercultural Competence (World-Wise) for graduate students at the College of Science. She participated in the first Purdue cohort in the USC Institutes of Equity Training Program, undertaking discussions on diversity, equity and inclusion with the entire College of Science leadership team.

**Supporting DEI efforts at the department-level:** As Interim Head of the department of Biological Sciences, Dr. Paschou is a champion and advocate for all DEI efforts across the department. In the past, she served on the Diversity Committee of the Dept of Biological Sciences in 2016-2021. coordinating diversity activities and integrating with other related efforts at the College of Science. Dr Paschou also participated as a Faculty Mentor in the Horizons Program. Purdue Horizons is a federally funded TRIO Program that was authorized by the Higher Education Amendments of 1968. The name TRIO stands for the original three programs that were initiated by the U.S. Department of Education and were the first national college access and retention programs to address the serious social and cultural barriers to education in America. Dr Paschou has mentored multiple female graduate students as a major professor (past and present) and has supported success for under-represented students in general (eg one of her Black PhD students at Purdue won an NSF Graduate Research Fellowship, and another one won an American Association for the Advancement of Women Fellowship). At her previous institution (Democritus University of Thrace) she was the first professor to recruit international students in the graduate program of the Department of Molecular Biology and Genetics. From the position of Chair of the European Society for the Study of Tourette Syndrome, she has provided multiple travel awards to allow students from low-income countries to attend the annual ESSTS meeting as well as educational workshops.

### **Highlights of Participation and Leadership in DEI initiatives**

**2023-present Lead PI - [Alfred P. Sloan Foundation Award: Purdue-Sloan Center for Systemic Change](#)** (\$250,000). Dr. Paschou coordinates work across nine departments in the Purdue College of Science and College of Engineering to prepare the successful launch of the Purdue-Sloan Center for Systemic Change. The goal of the program is to pursue a systemic approach towards breaking down barriers to STEM graduate education, expanding equitable access for all, improving student outcomes, supporting student success, and increasing Purdue's capacity to promote diversity, equity, inclusion, and belonging across all levels of the organization.

**2023-present Co-PI - Alfred P. Sloan Foundation Award: [Equitable Pathways to Graduate Education: Sloan PReMMiSS - Partnering in Research Mentoring for Minoritized Students](#)**

**in STEM (\$250,000)**. Dr. Paschou oversaw the establishment of a partnership between Purdue University and Chicago State University (Minority Serving Institution). The program brings together Purdue (STEM-focused research-intensive institution) and Chicago State University (urban, Predominantly Black Institution) to establish a joint mentoring framework that equips mentors and students with **increased intercultural competencies**, leading to systemic transformation at both institutions and widening pathways towards graduate education for minoritized students. As part of this project, **Dr. Paschou works closely with Purdue’s Center for Intercultural Learning Mentorship Assessment and Research (CILMAR)**.

**2024-present** Purdue lead coordinator in the **Equity in Graduate Education Consortium**

**2022-2023** **Establishment of Purdue-Morgan State University 2+3 Dual MS-PhD programs.** Dr Paschou led discussions as well as the review process for the establishment of a partnership between Purdue and the Historically Black Research University Morgan State. She oversaw discussions and development of the Activity Agreement, approval, and launch for a dual degree program that connects the Morgan State MSc in Physics to the Purdue Physics and Astronomy PhD program. She also launched similar discussions to connect Purdue Computer Science to Morgan State for dual MS-PhD programs.

**2021-2023** **Emerging Leaders Science Scholars (ELSS) Program, Faculty Director.** The ELSS Program is a signature initiative at Purdue College of Science, aiming to increase recruitment of high achieving students from backgrounds traditionally underserved by higher education institutions and equip students with skills they will need to become the next generation of STEM leaders. The program has led to record high enrollment of students from under-represented backgrounds at College of Science departments in the three years it has been running. DrPaschou established and coordinates the Faculty Mentoring component of the program, overseeing 70 ELSS Faculty Mentors, matching of ELSS students to Mentors as well as Mentor training. She has also established a community of practice for ELSS Faculty Mentors, offering a venue for Mentors to get together and discuss inclusive mentoring practices through the “Discussions on Mentoring” series.

**2019-2023** **Oversight of Summer Research Opportunity Program (SROP) across seven departments at the Purdue College of Science.** SROP is a pathway to graduate education at Purdue University. It is designed to provide equal access and opportunities to underrepresented and diverse students by preparing students for Graduate School by offering eight-weeks intensive research experiences, and graduate school resources that contributes to student's professional and academic growth.

**2019-2023** **Oversight of Graduate Diversity Visitation Program (GDVP) across seven departments at the Purdue College of Science.** This is a four-day program held each fall semester hosting students from under-represented backgrounds. During the visit, selected students become familiar with Purdue graduate programs, faculty and

students. The goal is to encourage students from under-represented backgrounds to pursue a graduate education at Purdue.

- 2019-2023** Member of the Purdue College of Science Faculty Committee for Diversity. This College-wide committee meets on a monthly basis to discuss issues related to Diversity, Equity, & Inclusion across the College of Science, monitor progress of various initiatives and programs and discuss new directions with the Dean and department representatives.
- 2019-2020** In collaboration with Purdue CILMAR (Center for Intercultural Learning, Mentoring, Assessment, and Research), Dr Paschou launched a series of workshops aiming to train graduate students across the Purdue College of Science in Intercultural Competencies (World-Wise Workshops).
- 2016-2020** Member of the Purdue Dept of Biological Sciences Diversity, Equity, & Inclusion Committee.
- 2019** Participated in the first Purdue cohort in the USC Equity Institute Training Program. This is an 8-week Program that leverages the expertise of the USC Race and Equity Center researchers and faculty affiliates to support senior administrative leaders from the same campus in exploring topics on racial equity, cultivating cohorts of race-conscious, equity-minded colleagues and collaborators, and strategically achieving racial equity goals.
- 2017-2019** Purdue Horizons Program Faculty Mentor. Purdue Horizons is a federally funded TRIO Program that were originally established by the federal government in 1965 to ensure equal educational opportunity for all Americans, regardless of race, ethnic background, or economic circumstances. They were the first national college access and retention programs to address the serious social and cultural barriers to education in America.
- 2010-2014** From the position of Chair of the European Society for the Study of Tourette Syndrome (ESSTS), Dr Paschou provided multiple travel awards to allow students from low-income countries to attend the annual ESSTS meeting as well as educational workshops.

## **G. Other Engagement Activities**

### **Public Engagement**

- 2022** **Invited Speaker** - Women In Science Program (WISP) at Purdue University “The Influence of Data Science in Scientific Research”, February 22, 2022
- 2011-2017** Established (in 2011) and co-organized in 2011-2017 the Annual International meeting of Tourette Syndrome Support and Advocacy Groups with participation of TS patient groups from around the world

- 2011** Establishment of European Tourette Syndrome Awareness Day (June 7) (from the position of Chair of European Society for the Study of Tourette Syndrome)
- 2010-2014** As Chair of the EU-funded COST Action European Network for the Study of Tourette Syndrome, organized multiple workshops for the education of health professionals in Tourette Syndrome diagnosis, assessment and management in several European countries (Greece, France, Italy, Poland, UK, Spain)
- 2012-2016** Together with PhD students from the EU-funded TS-EUROTRAIN Training Program, published a semi-annual newsletter highlighting research developments in Tourette Syndrome research
- 2010-2017** Established and maintained website for the European Society for the Study of Tourette Syndrome

**Scientific meetings – organizing committees**

- 2022** Greater Indiana Chapter Society for Neuroscience, April 2022
- 2022** Program Committee Member –World Congress for Psychiatric Genetics, Florence, Italy, September 2022
- 2022** Member of the Program and Organizing Committee, Annual Meeting of the Greater Indiana Society for Neuroscience, April 2022
- 2017** Proposer and Co-Chair of Symposium at XXVth World Congress for Psychiatric Genetics: Genetics of Gilles de la Tourette Syndrome: Accelerating discoveries through large-scale collaborative efforts. Orlando, USA, October 2017
- 2017** Member of the Program and Organizing Committee, Annual Meeting of the European Society for the Study of Tourette Syndrome, Seville, Spain, 2017
- 2016** Member of the Program and Organizing Committee, Annual Meeting of the European Society for the Study of Tourette Syndrome, Warsaw, Poland, 2016
- 2015** Co-Chair of Scientific Committee, 1<sup>ST</sup> World Congress on Tourette Syndrome and Tic Disorders, 2015
- 2014** Chair of the Program and Organizing Committee, Annual Meeting of the European Society for the Study of Tourette Syndrome, Paris, France, 2014
- 2013** Chair of the Program and Organizing Committee, Annual Meeting of the European Society for the Study of Tourette Syndrome, Athens, Greece, 2013
- 2012** Chair of the Program and Organizing Committee, Annual Meeting of the European Society for the Study of Tourette Syndrome, Catania, Italy, 2012
- 2011** Chair of Program and Organizing Committee, International workshop on “Planning the future of Tourette Syndrome Genetics Studies”, Amsterdam, December 14, 2001
- 2008** Program Committee Chair – International workshop “The Genetic basis of Gilles de la Tourette Syndrome”, Athens, November 18, 2008
- 2001** Organizing Committee Member – 11<sup>th</sup> International Clinical Genetics Seminar: ”The genetics of Diabetes Mellitus”, Heraklion, June 9-14 2001.

## **V. Mentoring**

### **A. Undergraduate Students**

Dr Paschou has led discussions at Purdue to promote inclusive and culturally responsive mentoring at the undergraduate and graduate level. She also serves as Faculty Director for the Purdue Emerging Leaders Science Scholars Program, a program that is meant to attract high-achieving undergraduate students from populations that have been under-served by Purdue and provide them a unique learning experience. As ELSS Faculty Director, Dr Paschou launched and coordinated a Faculty Mentor program, including workshops and seminars for training in Mentoring. With support from the Sloan Foundation, Dr. Paschou played a leading role in establishing a joint mentoring program in partnership with Chicago State University, bringing together Purdue faculty and CSU faculty in a community of practice to share best practices and learn from each other about culturally inclusive mentoring. 10 CSU students were part of the pilot cohort, supported by faculty and graduate student mentors over the course of the program, which aims to open up paths to graduate education for all students. She also worked with Purdue's Center for Intercultural Learning Mentoring and Research to build a training program that will enhance effective cross-cultural communication for Mentors and Mentees.

Dr Paschou strongly supports early involvement in research at the undergraduate level and has already supervised 30 undergraduate students in their diploma thesis at the Department of Molecular Biology of Genetics, Democritus University of Thrace and nine undergraduate students at Purdue. She participates as a mentor in the Horizons Program, the Beering program, and the Emerging Leaders Science Scholars Program. She also offers opportunities for undergraduate students to present their work at national and international conferences (ten undergraduate students who trained with Dr Paschou have presented their work at national and international conferences as lead authors). Six of Dr Paschou's published peer-reviewed journal papers include undergraduate researchers as co-authors.

### **B. Graduate Students (See also Academic Leadership section on Graduate Education)**

Dr Paschou served as Associate Dean for Graduate Education at Purdue University and from this position she oversaw programs and facilitated discussions on mentoring graduate students across seven departments in the Purdue College of Science. From this position, she also worked with Graduate Chairs across the College of Science departments to develop training and mentoring programs across the College. Dr Paschou has a long track record in supporting and mentoring graduate students prior to joining Purdue. She coordinated TS-EUROTRAIN, a Marie Curie Initial Training Network funded by the EU with 3,000,000 Euros and aiming to train 12 PhD students hosted by ten partners from academia and industry to pursue studies on the neurobiology and genetics of TS. In her own lab, she has mentored five graduate students who have already graduated and is currently supervising four graduate students at Purdue University. 23 of Dr Paschou's research papers have a graduate student supervised by her as first author. Dr Paschou has taught classes at

both the undergraduate and graduate levels and she has served on the Master's Program Organizing Committee at her previous institution.

### **Training and Mentoring Programs**

- 2012-2016**     *Training Grant Coordinator:* TS-EUROTRAIN: Interdisciplinary training network for Tourette Syndrome; structuring European Training capacities for neurodevelopmental disorders.” – Marie Curie Initial Training Network
- 2010-2014**     From the position of Chair of the EU-funded COST Action European Network for the Study of TS, Dr Paschou coordinated numerous training workshops as well as short-term scientific missions (training visits/exchanges) of young investigators across different European countries
- 2017-2019**     Purdue Horizons Program Faculty Mentor
- 2018-2020**     Purdue Beering Scholars Faculty Mentor
- 2021-2023**     **Faculty Director – Mentoring Program – Emerging Leaders Science Scholars.** Dr Paschou has served as Faculty Director for the College of Science Emerging Leaders Scholars program which recruits high achieving students from historically under-served groups and offer them a unique learning experience that will pave their way to success. Students receive a scholarship as well as intensive mentoring from peers and faculty and opportunities for study abroad, undergraduate research and internships. The program was launched as a pilot in 2020, attracting record numbers of students (88 students across seven departments) and is now expanded across multiple Purdue Colleges. As Faculty Director, Dr Paschou established and oversaw the faculty mentoring framework of the program and led faculty training in culturally aware mentoring in coordination with the Office of Diversity within the College of Science and the Provost's office for Equity and Diversity. This included a series of guided discussions with faculty mentors focused on mentorship development and sharing of best practices. She set the foundation for a community of practice that fosters mentoring at Purdue and motivates faculty to actively engage in the mentoring process which can be life-changing for both the mentor and the mentee.
- 2022-today**     **Sloan Foundation Award Co-PI. Title of Project: Sloan-PReMMiSS (Partnering in Research Mentoring for Minoritized Students in STEM). Level of funding: \$250,000.** Dr Paschou played a leading role in the establishment of the partnership that connects Purdue to Chicago State University (Predominantly Black Institution). The program builds a joint Purdue and CSU mentoring framework, equipping mentors and students with increased intercultural competencies. Our goal is to support systemic transformation at both institutions and widen pathways towards graduate education for all students.
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