



# Maria Stamou, MD/PhD



**HBA-USA Election  
Board of Directors 2023-2026**

## **Professional profile** (Expertise, degrees, current position, previous positions)

I am a physician-scientist with special clinical and research expertise in adult endocrinology. I have earned my MD and PhD from University of Patras, completed a research fellowship from 2012-2016 at the Reproductive Endocrine Unit of Massachusetts General Hospital (MGH), Harvard Medical School (HMS) and received clinical training in Internal Medicine at Mount Auburn Hospital of HMS from 2016-2019 and in Endocrinology between years 2019-2022. I am currently an Endocrinologist/Assistant in Medicine at Massachusetts General Hospital and an Instructor at Harvard Medical School. I am conducting research with the goal to understand the genetics of reproductive disorders and understand the links between metabolism and reproduction. I am also taking care of patients with simple and complex endocrine conditions in both inpatient and outpatient settings and I am teaching medical students, residents, and fellows of Harvard Medical School.

### **Education:**

<b>Year</b>	<b>Degree</b>	<b>Field</b>	<b>Institution</b>
2005-2011	M.D.	Medicine	University of Patras, School of Health Sciences, Department of Medicine, Patras, Greece
2012-2018	Ph.D.	Endocrinology	University of Patras, School of Health Sciences, Department of Medicine, Patras, Greece
2012-2016	Research Fellowship	Reproductive Endocrinology	Harvard Reproductive Science Center, Massachusetts General, Hospital, Boston, MA, USA
2016-2019	Resident Physician	Internal Medicine/Board Certified	Mount Auburn Hospital, Harvard Medical School, Cambridge, MA, USA
2019-2022	Endocrine Fellow	Endocrinology	Massachusetts General Hospital, Harvard Medical School, Cambridge, MA, USA
2022-now	Endocrinologist and Assistant in Medicine at Massachusetts General Hospital and an Instructor at Harvard Medical School	Endocrinology	Massachusetts General Hospital, Harvard Medical School, Cambridge, MA, USA

### **Positions:**

July 2022- now: Assistant in Medicine, Massachusetts General Hospital, Instructor, Harvard Medical School, Boston, MA, USA

July 2019- June 2022: Clinical and Research Endocrine Fellow, Massachusetts General Hospital, Harvard Medical School, Boston, MA, USA,

July 2016- June 2019: Resident Physician, Mount Auburn Hospital, Harvard Medical School Teaching Hospital, Program Director: Dr. Patrick Gordan.

October 2012- June 2018: Ph.D. student in the Reproductive Endocrinology Unit, Harvard Reproductive Sciences Center, Massachusetts General Hospital, Boston, Massachusetts, USA in collaboration with the Department of Endocrinology, University of Patras, School of Health Sciences, Department of Medicine, Patras Greece.

February 2012- July 2012: Intern/Resident, Internal Medicine I, Department of Gastroenterology, Hepatology & Endocrinology, University Hospital of Saarland, Germany

September 2005- July 2011: M.D., University of Patras, School of Health Science, Faculty of Medicine, Greece, Graduated Summa Cum Laude (graduated at the top of the class).

## **Scientific profile** (Research interests, publication record, distinctions & awards)

**Research interests:** As a physician scientist at Massachusetts General Hospital, Harvard Medicine School, I study genetic disorders of reproductive endocrinology. During my Ph.D. studies I investigated the genetic background of idiopathic hypogonadotropic hypogonadism (IHH) a rare Mendelian disease caused by GnRH deficiency. My studies led to the discovery a long non-coding RNA (lncRNA), *RMST* (Rabdomyosarcoma 2 Associated Transcript) in an IHH case with a balanced chromosomal rearrangement by utilizing long insert whole genome sequencing. Using patient derived pluripotent stem cells in collaboration with Dr. Ng we showed that *RMST* is important for neural crest cell differentiation and is implicated in GnRH biology. I have now completed my training in Internal Medicine and Endocrinology and as an Assistant in Medicine (MGH)/Instructor (HMS) I got inspired by my prior research and decided to investigate the role of copy number variants (CNVs) in the pathophysiology of reproductive diseases. I am studying IHH as a prismatic disease model and aim to define the contribution(s) CNVs to Mendelian disease pathogenesis. In addition, I conduct studies that investigate the genetic links between reproduction and metabolism. My studies are funded by the NIH/NICHD and have led to significant discoveries and publications. Ongoing and recently completed projects that I would like to highlight include:

### **Ongoing Research Funding:**

F32 HD108873-01

Stamou (PI)

04/01/2022-03/31/2025

Deciphering the Role of Copy Number Variants in Neuroendocrine Disorders of Infertility

### **Completed Research Support:**

Daland Fellowship- American Philosophical Society, Stamou (PI), William Crowley (Supervisor), "Identification of novel genes controlling human reproduction using the human disease model of Isolated GnRH Deficiency and next-generation genomics."

Alexander Onassis Foundation, Stamou (PI), Neoklis Georgopoulos (Supervisor), "Genotype-Phenotype correlations in Greek patients with isolated GnRH deficiency."

### **Awards and Honors:**

2023: Young Investigator Award, Women in Endocrinology, ENDO 2023, June 2023, Chicago, USA

2023: Eugenia Rosenberg Award, The Endocrine Society, ENDO 2023, June 2023, Chicago, USA

2021: Department of Medicine Fellow abstract award for the 2021 Clinical Research Day, MGH, Boston, USA

2021: Endocrine Society Outstanding Abstract Award, ENDO 2021, March 20-23, 2021

2020: Award for oral abstract presentation, New England Chapter of AACE, 12th Annual Meeting, USA.

2020: Harvard Catalyst Scholar, Clinical and Translational Research Academy, HMS, Boston, MA, USA

2019: European Society of Endocrinology Basic Science Meeting Grant, May 2019, Lyon, France.

2018: Award for Best Presentation in Basic Science, Mount Auburn Research Day, Mount Auburn Hospital, Harvard Medical School, Cambridge, MA, USA.

2017: Award for Best Presentation in Case Report, Mount Auburn Research Day, Mount Auburn Hospital, Harvard Medical School, Cambridge, MA, USA.

2014: Daland Fellow, American Philosophical Society, Philadelphia, USA.

2013: Alexander S. Onassis Benefit Foundation Award, USA - Greece.

2013: Endocrine Society Early Career Travel Award, Endocrine Society Meeting, San Francisco, CA.

2012: Empeirikion Foundation Award, Athens, Greece

2011: Award for graduating and ranking at the top of the class among all graduates of the School of Health Science, Faculty of Medicine, Greece.

2011: Outstanding graduate student for research training abroad by University of Patras and GSK,

2011: Award for Best medical student of the University of Patras for the academic year 2010-2011.

2010: Award for Best medical student of the University of Patras during the academic year 2009-2010.

2009: Award for Best medical student of the University of Patras during the academic year 2008-2009.

2008: Award for Best medical student of the University of Patras during the academic year 2007-2008.

## Peer-Reviewed Scholarship in print or other media:

- Xinying Wang, Danna Chen, Yaguang Zhao, Meichao Men, Zhiheng Chen, Fang Jiang, Ruizhi Zheng, **Maria I Stamou**, Lacey Plummer, Ravikumar Balasubramanian, Jia-Da L, A functional spectrum of *PROKR2* mutations identified in isolated hypogonadotropic hypogonadism, *Human Molecular Genetics*, Volume 32, Issue 10, 15 May 2023, Pages 1722–1729
- Jessica Cassin\*, **Maria I. Stamou\***, Kimberly W. Keefe, Kaitlin E. Sung, Celine C. Bojo, and Karen J. Tonsfeldt, Rebecca A Rojas, Vanessa Ferreira Lopes, Lacey Plummer, Kathryn Salnikov, David L. Keefe Jr, Metin Ozata, Myron Genel, Neoklis A. Georgopoulos, Janet Hall, William F. Crowley Jr, Stephanie Seminara, Pamela L. Mellon, # Ravikumar Balasubramanian# “Heterozygous Mutations in *SOX2* may cause Isolated Hypogonadotropic Hypogonadism via Dominant-negative Mechanisms.” *JCI insight*, 2023 Feb 8;8(3):e164324, doi: 10.1172/jci.insight.164324. \* **denotes co-authorship**
- Andrew A. Dwyer\*, **Maria Stamou\***, Ella Anghel, Shira Hornstein, Danna Chen, Kathryn B. Salnikov, Isabella R. McDonald, Lacey Plummer, Stephanie B. Seminara, Ravikumar Balasubramanian. “Reproductive phenotypes and genotypes in men with IHH”, *J Clin Endocrinol Metab*, 2022 Oct 21;dgac615; doi: 10.1210/clinem/dgac615, \* **denotes co-authorship**
- Andrew A. Dwyer\*, **Maria Stamou \***, Isabella R. McDonald, Ella Anghel, Kimberly Cox, Kathryn B. Salnikov, Lacey Plummer, Stephanie B. Seminara, Ravikumar Balasubramanian. “Reversible hypogonadotropic hypogonadism in men with the fertile eunuch/Pasqualini syndrome: A single-center natural history study”, *Front. Endocrinol, Sec. Reproduction*; doi: 10.3389/fendo.2022.1054447, \* **denotes co-authorship**
- Hyun-Ju Cho, Fatih Gurbuz, **Maria Stamou**, Leman Damla Kotan, Stephen Matthew Farmer, Sule Can, Miranda Faith Tompkins, Jamala Mammadova, S Ayca Altincik, Cumali Gokce, Gonul Catli, Fuat Bugrul, Keenan Bartlett, Ihsan Turan, Ravikumar Balasubramanian, Bilgin Yuksel, Stephanie Seminara, Susan Wray, A Kemal Topaloglu, “*POU6F2* mutation identified in humans with pubertal failure shifts isoform formation and 2 alters GnRH transcript expression” bioRxiv, Cold Spring Harbor Laboratory, 2022
- Margaret F Lippincott, Wanxue Xu, Abigail A Smith, Xinyu Miao, Agathe Lafont, Omar Shennib, Gordon J Farley, Riwa Sabbagh, Angela Delaney, **Maria Stamou**, Lacey Plummer, Kathryn Salnikov, Neoklis A Georgopoulos, Veronica Mericq, Richard Quinton, Frederic Tran Mau-Them, Sophie Nambot, Asma Hamad, Helen Brittain, Rebecca S Tooze, Eduardo Calpena, Andrew OM Wilkie, Marjolaine Willems, William F Crowley, Ravikumar Balasubramanian, Nathalie Lamarche-Vane, Erica E Davis, Stephanie B Seminara, The p190 RhoGAPs, *ARHGAP35*, and *ARHGAP5* are implicated in GnRH neuronal development: Evidence from patients with idiopathic hypogonadotropic hypogonadism, zebrafish, and in vitro GAP activity assay, *Genet Med* 2022 Sep 29;S1098-3600(22)00915-7.doi: 10.1016/j.gim.2022.08.025.
- Tian Ge, Amit Patki , Vinodh Srinivasasainagendra , Yen-Feng Lin, Marguerite Ryan Irvin, Hemant K. Tiwari, Nicole Armstrong Brittney H. Davis, Emma Perez, Vivian Gainer, Barbara Benoit, Mark J. O’Connor, Renuka Narayan, Bethany Etheridge, **Maria Stamou**, Aaron Leong, Miriam S. Udler, Karmel W. Choi, Ayme D. Miles, Krzysztof Kiryluk, Atlas Khan, Chia-Yen Chen, Yen-Chen Anne Feng, Hailiang Huang, James J. Cimino, Shawn Murphy, Scott T. Weiss, Christoph Lange, Maggie C. Y. Ng, Jordan W. Smoller, Matthew S. Lebo, James B. Meigs, Nita A. Limdi, Elizabeth W. Karlson, “Validation of a Trans-Ancestry Polygenic Risk Score for Type 2 Diabetes in Diverse Populations”, *Genome Med*, 2022 Jun 29;14(1):70, doi: 10.1186/s13073-022-01074-2.
- **M.I. Stamou\***, H. Brand\*, I. Wong, M. Wang, L. Plummer, M. F. Lippincott, W.F. Crowley, M. E. Talkowski, S. Seminara, R. Balasubramanian Prevalence and Phenotypic Effects of Copy Number Variants in Isolated Hypogonadotropic Hypogonadism, *J Clin Endocrinol Metab*, 2022 May 16;dgac300; doi: 10.1210/clinem/dgac300.
- Sara J Cromer, MD; Caitlin Colling, MD; Daria Schatoff, MD; Michael Leary, BA; **Maria I. Stamou, MD, PhD**; Daryl J. Selen, MD; Melissa S. Putman, MD; Deborah J Wexler, MD, MSc<sup>1</sup> “New-Onset Diabetes upon Admission for COVID-19: Associated Factors, Short-term Outcomes, and Long-term Glycemic Phenotypes”, *J Diabetes Complications*. 2022 Apr;36(4):108145. doi: 10.1016/j.jdiacomp.2022.108145. Epub 2022 Feb 4
- Anna Liori, Damaskini Polychroni, Georgios K Markantes, **Maria Stamou**, Sarantis Livadas, George Mastorakos, Neoklis Georgopoulos, Severe hypovitaminosis D in pregnant refugees arriving in Europe: neonatal outcomes and importance of prenatal intervention” *Endocr Connect.*, 2021 Dec 1; EC-21-0412.R2.doi:10.1530/EC-21-0412
- Lida-Maria Exarchos, Georgios K. Markantes, **Maria I. Stamou**, Georgios Michail, Georgios Androustopoulos, Apostolos Kaponis, George Adonakis, Neoklis A.Georgopoulos. “Teenage pregnancies in Western Greece: experience from a University Hospital setting”, *Hormones (Athens)*. 2021 Nov 26. doi: 10.1007/s42000-021-00337-8.
- Dimitra Mantzou, **Maria I. Stamou**, Anastasia K. Armeni, Nikolaos D. Roupas, Konstantinos Assimakopoulos, George Adonakis, Neoklis A. Georgopoulos, Georgios K. Markantes. Impaired sexual function in young women with PCOS: the detrimental effect of anovulation, *Journal of Sexual Medicine*, Oct 2: S1743-6095(21)00669-X. doi: 10.1016/j.jsxm.2021.09.004.
- Anna A. Kutateladze\*, Rebecca A. Rojas\*, Lacey Plummer, **Maria Stamou**, David L. Keefe Jr , Angela Delaney, Janet E. Hall, Ruslan Sadreyev, Fei Ji, Eric Fliers, Katarina Gambosova, Richard Quinton, Paulina Merino, Veronica Mericq,

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- Anna A. Kutateladze\*, Rebecca A. Rojas\*, Lacey Plummer, **Maria Stamou**, David L. Keefe Jr , Angela Delaney, Janet E. Hall, Ruslan Sadreyev, Fei Ji, Eric Fliers, Katarina Gambosova, Richard Quinton, Paulina Merino, Veronica Mericq, Stephanie B Seminara, William F. Crowley Jr MD1, & Ravikumar Balasubramanian “Phenotyping continuum between Waardenburg syndrome and Idiopathic hypogonadotropic Hypogonadism in Humans with SOX10 mutations”, *October 2020, Genetics in Medicine*, 10.1038/s41436-020-01051-3.
- **Stamou MI\***, Ng Shi-Yan, Brad H, Hanscom C, Plummer L, Best LG, Havlicek S, Hibberd ML, Khor CC, Balasubramanian R, Talkowski ME, Stanton LW, Crowley Jr WF, “A balanced translocation in Kallmann Syndrome implicated a long noncoding RNA, RMST, as a GnRH neuronal regulator”, *The Journal of Clinical Endocrinology & Metabolism*, Volume 105, Issue 3, March 2020, Pages e231–e244.
- **Stamou MI**, Plummer L, Galli-Tsinopoulou A, Stergidou D, Koika V, Georgopoulos NA, “Unilateral renal agenesis as an early marker for genetic screening in Kallmann syndrome.” *Hormones (Athens)*, 18(1); 103-105 September 2019.
- **Stamou M**, Varnavas P, Plummer L, Koika V, Georgopoulos N “Next generation sequencing refines the genetic architecture of Greek GnRH deficient patients.”, *Endocr Connect*, 8 (5); 468-480 March 2019.
- Stamou MI, Georgopoulos NA “Kallmann Syndrome: Phenotype and Genotype of Hypogonadotropic Hypogonadism.” -, **Metabolism**, Volume 86, September 2018, Pages 124-134
- Neoklis A. Georgopoulos, Anastasia K. Armeni, **Maria Stamou**, Andromachi Kentrou, Evangelia Eirini Tsermpini, Gregoris Iconomou, Thomas Hyphantis, Konstatinos Asimakopoulos “Gonadotropin-releasing hormone (GnRH) deficiency under treatment: Personality, psychological and sexual functioning impacts.” -, *Hormones (Athens)*, 17(3), 383-390 September 2017.
- **Stamou MI**, Varnavas P, Kentrou M, Adamidou F, Voutetakis A, Jing J, Plummer L, Koika V, Georgopoulos NA “Isolated GNRH deficiency: genotypic and phenotypic characteristics of the genetically heterogeneous Greek population.”- *Eur J Endocrinol*, *Eur J Endocrinol*, 2017 Mar; 176(3): L1–L5.

### Case reports

- **Maria I Stamou**, Christopher Chen, Seth A Wander, Jeffrey G Supko, Dejan Juric, Aditya Bardia, Deborah J Wexler, Severe Lactic Acidosis Complicated by Insulin-Resistant Hyperosmolar Hyperglycemic Syndrome in a Patient With Metastatic Breast Cancer Undergoing AKT-Inhibitor Therapy, *JCO Precis Oncol*, 2022 Jun;6:e2100428, doi: 10.1200/PO.21.00428.
- Vasiliki Vasileiou, Georgios K Markantes, **Maria I Stamou**, Neoklis A Georgopoulos, Endocrine disruptors in ancient times and Greek mythology: the spring of Salmacis and the curse of Hermaphroditus, *Hormones (Athens)*2022 Jul 23, doi: 10.1007/s42000-022-00388-5.
- Markantes GK, **Stamou MI**, Barouti K, Georgakopoulou D, Vasileiou V, Georgopoulos NA. A manless adultery: the story of Bassa as related in a Marcus Valerius Martialis' epigram, *Hormones (Athens)*, 2021 Jul 23.doi: 10.1007/s42000-021-00310-5.
- Georgios K. Markantes, Konstantina Barouti, **Maria I. Stamou**, Neoklis A. Georgopoulos, Leucippus: male or death, *Hormones (Athens)*, 2020 Sep 15, doi: 10.1007/s42000-020-00239-1.
- **Stamou MI**, Plummer L, Koika V, Galli-Tsinopoulou A, Georgopoulos NA “A novel FGF8 mutation in a female with isolated congenital anosmia”, *Hormones (Athens)*, 241–244, May 2019.

### Online publications

- **Stamou MI**, Ravikumar B., Crowley WF. “Kallmann Syndrome” NORD, National Organization for Rare Diseases, 2012, <https://rarediseases.org/rare-diseases/kallmann-syndrome/>], July 2013

### Reviews, Chapters, monographs, and editorials

- **Maria I Stamou**, Caitlin Colling, Laura E Dichtel, Adrenal aging and its effects on the stress response and immunosenescence, *Maturitas*, Vol 168, February 2023, Pages 13-19
- **Maria I. Stamou** & Ravikumar Balasubramanian, Hypothalamic Ceramides and the Ovarian Sympathetic System: At the Crossroads of Obesity and Puberty, *Cell Metabolism*, 2020 Nov 20;S1550-4131(20)30607-0.
- Paschou SA, **Stamou M**, Vuagnat H, Tentolouris N, Jude E, “Pain management of chronic wounds. Diabetic ulcers and beyond.”, *Maturitas*, Volume 117, November 2018, Pages 17-21

### **Reviews, chapters, monographs, and editorials (cont.)**

- **Stamou MI**, Cox KH, Crowley WF, "Discovering Genes Essential to the Hypothalamic Regulation of Human Reproduction: Adjusting to Life in the "-Omics" Era, *Endocrine Reviews*, Volume 36, Issue 6, 1 December 2015, Pages 603."—621
- Papakonstantinou NA, **Stamou MI**, Goudevenos J., Aposotlakis E. "Sex differentiation with regard to coronary artery disease.", *Journal of cardiology* 62 (1), 4-11

### **Books/textbooks for the medical or scientific community**

- **Thesis: "Genotype- Phenotype correlations in patients with GnRH Deficiency", University of Patras.** Committee members: Dr. Neoklis A. Georgopoulos, Dr. William Crowley, Dr. Theodore Alexandridis, Dr. Kostas Markou, Dr. George Antonakis, Dr. Venetsana Kyriazopoulou and Dr. Vassiliki Greka-Spiliotis.
- **Book chapter: "Comprehensive Clinical Approach to Diabetes During Pregnancy; Fetal Origin of Adult disease: the case of Gestational Diabetes Mellitus",** Maria Stamou and Marie-France Hivert, 93-116, **Springer, Cham.**

### **Online publications**

- **Stamou MI**, Ravikumar B., Crowley WF. "Kallmann Syndrome" **NORD**, National Organization for Rare Diseases, 2012, <https://rarediseases.org/rare-diseases/kallmann-syndrome/>], July 2013

### **Select Invited Regional, National and International Teaching and Presentations:**

- "Rising Star Power Talk: Defective FGFR1 Signaling Disrupts Glucose Regulation in Humans: Evidence From Patients with Isolated Hypogonadotropic Hypogonadism Harboring FGFR1 Mutations. ENDO 2023, June 2023
- "Challenging Reproductive Endocrine Cases", Workshop at Clinical Endocrinology, Harvard Medical School, March 2023.
- "Hypogonadotropic Hypogonadism", Postdoctoral Lectures in Endocrinology, Aristotle University of Thessaloniki School of Medicine. January 2023.
- "Hypothalamic Amenorrhea", Msc in Human Reproduction, Aristotle University of Thessaloniki School of Medicine, October 2023.
- "Review of reproductive endocrine cases", New England Endocrine Alliance Didactic Series, September 2022
- "From Bench to Bedside", Aristotle Medical Forum 2022, International Conference of Hellenic Medical Diaspora, July 2022.
- "Closing the Missing Heritability Gap in Isolated GnRH Deficiency Through Structural Variation Characterization", CTRA, Harvard Catalyst, Harvard Medical School, June 2022.
- "Closing the Missing Heritability Gap in Isolated GnRH Deficiency Through Structural Variation Characterization", Endocrine Grand Rounds, Division of Endocrinology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, USA, March 2022
- "Brain and Reproduction", Elective Course, Medical Students, virtual course, University of Patras, School of Health Sciences, Department of Medicine, April 2021.
- "Etiologies of hypercalcemia", Clinical Case Workshop on Calcium Disorders & Chronic Kidney Disease and Bone Health, Virtual Course, Webinar, American Society of Bone and Mineral Research, Virtual Course, September 2020

### **Priorities regarding activities that the HBA-USA should undertake**

I am highly interested in participating in the mentoring program and organize local networking events. To foster collaborations between Greece and USA, during my prior position as the appointed secretary of the Hellenic Bioscientific Association of USA I pioneered interactions between Greek and American scientists, including webinars for those seeking medical residency in USA (attended by >120 medical students from all Universities around Greece). From my position as an MD/ PhD and International Medical Graduate I am highly interested in organizing workshops and seminars for medical school graduates or graduates in the bioscientific field from Greece who are interested in conducting research and/or clinical training in the USA.

**Time commitment that the candidate can take during his term as a BD member:**

- Less than 4 hours/month
- 4-10 hours/month
- 10-20 hours/month
- More than 20 hours/month

**Highest position that the candidate would prefer to hold in the BD (more than one can be selected):**

- President
- Vice-President
- General Secretary
- Treasurer
- Appointed Secretary
- Councilor
- Any of the above

**Additional comments that the Candidate wants to make:**