Stanford



# Lucia Aronica

Academic Staff - Hourly - CSL, Medicine - Stanford Prevention Research Center

## Bio

### BIO

Dr. Lucia Aronica is a Lecturer at Stanford University School of Medicine with nearly two decades of research experience in epigenetics and nutrigenomics. She created Stanford's first courses in nutritional epigenetics and longevity medicine, and developed "epinutrition," a framework for using food to support healthy gene expression

Featured in the 2024 Netflix documentary "You Are What You Eat: A Twin Experiment," Dr. Aronica is a TEDx speaker who presents to 10,000+ clinicians annually. She has published 25+ peer-reviewed papers in top journals including Cell and BMC Medicine, and secured over $1 million in competitive research funding.

Dr. Aronica received her PhD in epigenetics from the University of Vienna (2010) and conducted research at Oxford and USC. She serves on scientific advisory boards in precision health and longevity medicine.

### ACADEMIC APPOINTMENTS

- Academic Staff - Hourly - CSL, Medicine - Stanford Prevention Research Center

### HONORS AND AWARDS

- Marie Skłodowska-Curie Action Global Fellowship, European Union (2016-1019)
- People’s Choice Award, Europe PubMed Central (2014)
- Hertha Firnberg Fellowship, Austrian Science Fund (FWF) (2011-2014)
- Doctoral Thesis Award, Schaumayer Foundation (2010)
- Winner, Famelab Scientific Communication Competition (2009)
- FP6 Marie Curie Actions Early Stage Training, European Union (2007-2010)

### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- R&D Lead - Genomics, Metagenics Inc (2018 - present)
- Director of Epigenetics, Apeiron Medicals (2017 - present)
- Advisory Board Member, Span Health (2017 - present)
- Advisory Board Member, NaturalisNordica (2016 - present)

# Research & Scholarship

## PROJECTS

- Epigenetic Biomarkers for Precision Medicine in Obesity - Stanford University
- Sex/Gender Differences in Diet Adherence and Weight Loss - Stanford University
- Nutrigenetic Analysis in the iPOP Study - Stanford University

# Teaching

## GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Community Health and Prevention Research (Masters Program)

# Publications

## PUBLICATIONS

- **Perinatal nutrition as a key regulator of genomic imprinting: a new paradigm for maternal-child health.** *Frontiers in nutrition*
  Aronica, L., Fessler, S. N., Stone Rydbom, E., Jirtle, R. L.
  2025; 12: 1681847

- **Unveiling the epigenetic impact of vegan vs. omnivorous diets on aging: insights from the Twins Nutrition Study (TwiNS).** *BMC medicine*
  Dwaraka, V. B., Aronica, L., Carreras-Gallo, N., Robinson, J. L., Hennings, T., Carter, M. M., Corley, M. J., Lin, A., Turner, L., Smith, R., Mendez, T. L., Went, H., Ebel, et al
  2024; 22 (1): 301

- **Corrigendum: Weight, insulin resistance, blood lipids, and diet quality changes associated with ketogenic and ultra low-fat dietary patterns: a secondary analysis of the DIETFITS randomized clinical trial.** *Frontiers in nutrition*
  Aronica, L., Landry, M. J., Rigdon, J., Gardner, C. D.
  2023; 10: 1275498

- **Weight, insulin resistance, blood lipids, and diet quality changes associated with ketogenic and ultra low-fat dietary patterns: a secondary analysis of the DIETFITS randomized clinical trial.** *Frontiers in nutrition*
  Aronica, L., Landry, M. J., Rigdon, J., Gardner, C. D.
  2023; 10: 1220020

- **Evidence for the carbohydrate-insulin model in a reanalysis of the Diet Intervention Examining The Factors Interacting with Treatment Success (DIETFITS) trial.** *The American journal of clinical nutrition*
  Soto-Mota, A., Pereira, M. A., Ebbeling, C. B., Aronica, L., Ludwig, D. S.
  2023

- **Reply to T Kalayjian and EC Westman.** *The American journal of clinical nutrition*
  Gardner, C. D., Landry, M. J., Aronica, L., Cunanan, K. M., Kim, S. H.
  2022

- **Effect of a Ketogenic Diet versus Mediterranean Diet on HbA1c in Individuals with Prediabetes and Type 2 Diabetes Mellitus: the Interventional Keto-Med Randomized Crossover Trial.** *The American journal of clinical nutrition*
  Gardner, C. D., Landry, M. J., Perelman, D., Petlura, C., Durand, L. R., Aronica, L., Crimarco, A., Cunanan, K. M., Chang, A., Dant, C. C., Robinson, J. L., Kim, S. H.
  2022

- **Genetic Biomarkers of Metabolic Detoxification for Personalized Lifestyle Medicine.** *Nutrients*
  Aronica, L., Ordovas, J. M., Volkov, A., Lamb, J. J., Stone, P. M., Minich, D., Leary, M., Class, M., Metti, D., Larson, I. A., Contractor, N., Eck, B., Bland, et al
  2022; 14 (4)

- **Personalized Lifestyle Intervention and Functional Evaluation Health Outcomes SurvEy: Presentation of the LIFEHOUSE Study Using N-of-One Tent-Umbrella-Bucket Design.** *Journal of personalized medicine*

Lamb, J. J., Stone, M., D'Adamo, C. R., Volkov, A., Metti, D., Aronica, L., Minich, D., Leary, M., Class, M., Carullo, M., Ryan, J. J., Larson, I. A., Lundquist, et al
1800; 12 (1)

- **Identification of Nrl1 Domains Responsible for Interactions with RNA-Processing Factors and Regulation of Nrl1 Function by Phosphorylation.** *International journal of molecular sciences*
  Mikolaskova, B., Jurcik, M., Cipakova, I., Selicky, T., Jurcik, J., Polakova, S. B., Stupenova, E., Dudas, A., Sivakova, B., Bellova, J., Barath, P., Aronica, L., Gregan, et al
  2021; 22 (13)
- **Associations of Changes in Blood Lipid Concentrations with Changes in Dietary Cholesterol Intake in the Context of a Healthy Low-Carbohydrate Weight Loss Diet: A Secondary Analysis of the DIETFITS Trial.** *Nutrients*
  Vergara, M., Hauser, M. E., Aronica, L., Rigdon, J., Fielding-Singh, P., Shih, C. W., Gardner, C. D.
  2021; 13 (6)
- **Adherence to Ketogenic and Mediterranean Study Diets in a Crossover Trial: The Keto-Med Randomized Trial.** *Nutrients*
  Landry, M. J., Crimarco, A. n., Perelman, D. n., Durand, L. R., Petlura, C. n., Aronica, L. n., Robinson, J. L., Kim, S. H., Gardner, C. D.
  2021; 13 (3)
- **Genetic variants for personalised management of very low carbohydrate ketogenic diets.** *BMJ nutrition, prevention & health*
  Aronica, L., Volek, J., Poff, A., D'agostino, D. P.
  2020; 3 (2): 363–73
- **Examining differences between overweight women and men in 12-month weight loss study comparing healthy low-carbohydrate vs. low-fat diets.** *International journal of obesity (2005)*
  Aronica, L., Rigdon, J., Offringa, L. C., Stefanick, M. L., Gardner, C. D.
  2020
- **RW-2018-Research Workshop: The Effect of Nutrition on Epigenetic Status, Growth, and Health**
  Skinner, M., Lumey, L. H., Fleming, T. P., Sapienza, C., Hoyo, C., Aronica, L., Thompson, J., Nichol, P. F.
  WILEY.2019: 627–37
- **Changes in blood lipid concentrations associated with changes in intake of dietary saturated fat in the context of a healthy low-carbohydrate weight-loss diet: a secondary analysis of the Diet Intervention Examining The Factors Interacting with Treatment Success (DIETFITS) trial** *AMERICAN JOURNAL OF CLINICAL NUTRITION*
  Shih, C. W., Hauser, M. E., Aronica, L., Rigdon, J., Gardner, C. D.
  2019; 109 (2): 433–41
- **Changes in blood lipid concentrations associated with changes in intake of dietary saturated fat in the context of a healthy low-carbohydrate weight-loss diet: a secondary analysis of the Diet Intervention Examining The Factors Interacting with Treatment Success (DIETFITS) trial.** *The American journal of clinical nutrition*
  Shih, C. W., Hauser, M. E., Aronica, L., Rigdon, J., Gardner, C. D.
  2019
- **RW-2018-Research Workshop: The Effect of Nutrition on Epigenetic Status, Growth, and Health.** *JPEN. Journal of parenteral and enteral nutrition*
  Skinner, M. n., Lumey, L. H., Fleming, T. P., Sapienza, C. n., Hoyo, C. n., Aronica, L. n., Thompson, J. n., Nichol, P. F.
  2019
- **A systematic review of studies of DNA methylation in the context of a weight loss intervention** *EPIGENOMICS*
  Aronica, L., Levine, A. J., Brennan, K., Mi, J., Gardner, C., Haile, R. W., Hitchins, M. P.
  2017; 9 (5): 769-787
- **A systematic review of studies of DNA methylation in the context of a weight loss intervention** *Epigenomics*
  Aronica, L., et al
  2017
- **The spliceosome-associated protein Nrl1 suppresses homologous recombination-dependent R-loop formation in fission yeast.** *Nucleic acids research*
  Aronica, L., Kasparek, T., Ruchman, D., Marquez, Y., Cipak, L., Cipakova, I., Anrather, D., Mikolaskova, B., Radtke, M., Sarkar, S., Pai, C., Blaikley, E., Walker, et al

2016; 44 (4): 1703-1717

- **A Tetrahymena Hsp90 co-chaperone promotes siRNA loading by ATP-dependent and ATP-independent mechanisms** *EMBO JOURNAL*
  Woehrer, S. L., Aronica, L., Suhren, J. H., Busch, C. J., Noto, T., Mochizuki, K.
  2015; 34 (4): 559-577

- **How Healthy Eating Could Starve Out Cancer**
  Aronica, L.
  Europe PubMed Central.
  2014

- **The Tetrahymena Argonaute-Binding Protein Giw1p Directs a Mature Argonaute-siRNA Complex to the Nucleus** *CELL*
  Noto, T., Kurth, H. M., Kataoka, K., Aronica, L., DeSouza, L. V., Siu, K. W., Pearlman, R. E., Gorovsky, M. A., Mochizuki, K.
  2010; 140 (5): 692-703

- **Study of an RNA helicase implicates small RNA-noncoding RNA interactions in programmed DNA elimination in Tetrahymena** *GENES & DEVELOPMENT*
  Aronica, L., Bednenko, J., Noto, T., DeSouza, L. V., Siu, K. W., Loidl, J., Pearlman, R. E., Gorovsky, M. A., Mochizuki, K.
  2008; 22 (16): 2228-2241

## PRESENTATIONS

- Diet and Gene Expression: From Honeybees to Humans - Nutrition 2018, American Society for Nutrition
- Research Workshop: The Effect of Nutrition on Epigenetic Status, Growth, and Health - ASPEN 2018 Nutrition Science & Practice Conference
- Diet and Gene Expression: The Epigenetics of Low-Carb and Low-Fat Diets - AHS Symposium 2017