CURRICULUM VITAE

Isabela Gerdes Gyuricza

The Jackson Laboratory

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EDUCATION

2017 - 2019. Master's degree in Genetics at Biosciences Institute – University of São Paulo, São Paulo (IB-USP), Brazil.

2012 - 2016. Bachelor's degree in Biological Sciences at College of Philosophy, Sciences and Literature of Ribeirão Preto – University of São Paulo, Ribeirão Preto (FFCLRP – USP), Brazil.

RESEARCH EXPERIENCE

Nov 2019 – Current. Research Data Analyst at The Jackson Laboratory. Working in projects involving big data and aging.

Skills: R; bash; RNA-seq/proteome analysis and processing; Quantitative Trait Loci (QTL) mapping; statistics modeling; data visualization; computational biology.

Sept 2018 – Mar 2019. Visiting scholar at The Jackson Laboratory. Training in computational biology and statistics.

Principal Investigator: Gary Churchill. The Jackson Laboratory, Bar Harbor, ME, USA.

Projects: "Analysis of differential gene expression in a mouse model for Marfan Syndrome with phenotypic variability"; "Differential gene and protein expression in the aging heart of Diversity Outbred mice".

Skills: R; bash; RNAseq and proteome data analysis; QTL mapping; statistics; computational biology.

2017 – 2019. Master's student in Genetics and Evolutionary Biology Department.

Principal Investigator: Lygia da Veiga Pereira, University of São Paulo, São Paulo, SP, Brazil.

Project: "Characterization of the role of *Hspg2* gene as a modulator of cardiovascular and skeletal phenotypes in Marfan Syndrome".

Skills: Molecular biology; murine model experimentation; histological techniques.

Jan 2016 – May 2016. Industrial technological development at Fundação Hemocentro of Ribeirão Preto.

Principal Investigator: Simone Kashima, University of São Paulo, Ribeirão Preto, SP, Brazil.

Project: "Molecular and functional characterization of induced pluripotent stem cells (iPS)".

Skills: Molecular biology; cellular culture.

2013 – 2016. Undergraduate research fellow at Fundação Hemocentro of Ribeirão Preto.

Principal Investigator: Simone Kashima, University of São Paulo, Ribeirão Preto, SP, Brazil.

Project: "Teratoma formation assay in mice for evaluating pluripotency of induced pluripotent stem cells (iPS)".

Skills: Cellular culture; murine model experimentation; histological techniques.

2012 – 2013: Research trainee at Fundação Hemocentro of Ribeirão Preto, University of São Paulo, Ribeirão Preto, SP, Brazil.

LANGUAGE SKILLS

Portuguese (Native); English (Proficient);

PUBLICATIONS

Barbosa de Souza, R; Gerdes Gyuricza, I; Cassiano Lucena, L; Farinha-Arcieri, LE; Liberatore Alvim, NA; do Carmo Schuindt, S; Caldeira, W; Cruz, MV; Ribeiro, AF; Tedesco, RC; Reinhardt, DP; Smith, R; Koh, IHJ; Pereira, LV. The $mg^{\Delta lpn}$ mouse model for Marfan syndrome recapitulates the ocular phenotypes of the disease. *Experimental Eye Research*, 2021.

Preprint: Gerdes Gyuricza, I; Chick, JM; Keele GR; Deighan AG; Munger, SC; Korstanje, R; Gygi, SP; Churchill GA**.** Genome-wide transcript and protein analysis reveals distinct features of aging in the mouse heart. *bioRxiv*, 2020.

Preprint: Takemon Y; Chick, JM; Gerdes Gyuricza, I; Skelly DA; Devuyst O; Churchill GA; Korstanje, R**.** Proteomic and transcriptomic profiling reveal different aspects of aging in the kidney. *bioRxiv*, 2020.

Gerdes Gyuricza, I; Barbosa de Souza, R; Farinha-Arcieri, LE; Pereira, LV. Is *HSPG2* a modifier gene for Marfan Syndrome? *Eur J Hum Genet*, 2020.

Preprint: Gerdes Gyuricza, I; Barbosa de Souza, R; Farinha-Arcieri, LE; Pereira, LV. Is *HSPG2* a modifier gene for Marfan Syndrome? *bioRxiv*, 2020.

Reis, LCJ; Picanço-Castro, V; Paes, BCMF; Ferreira, AO; Gerdes Gyuricza, I; Araújo, FT; Morato, M; Moreira, LF; Costa, EBO; Santos, TPM; Covas, DT, Pereira, LV; Russo, EMS. Induced Pluripotent Stem Cell for the Study and Treatment of Sickle Cell Anemia. *Stem Cell International*, 2017.

HONORS, AWARDS AND FUNDINGS

2013 - 2016. Undergraduate research scholarship by the Sao Paulo Research Foundation (FAPESP). Project: “Teratoma formation assay in mice for evaluating pluripotency of induced pluripotent stem cells (iPS)”.

2013. Honorable mention award at the Undergraduate Research Symposium at the University of São Paulo. Poster presentation: Teratoma formation assay for evaluating pluripotency of induced pluripotent stem cells (iPS).

Jan 2016 – May 2016. Undergraduate research scholarship by the National funding agency (CNPq). Project: “Molecular and functional characterization of induced pluripotent stem cells (iPS)”.

2017. Sponsorship from The Howard Hughes Medical Institute. Human and Mammalian Genetics and Genomics: The 58th McKusick Short Course”. The Jackson Laboratory, USA.

Sept 2018 – Mar 2019. International fellow research scholarship by the Sao Paulo Research Foundation (FAPESP). Project: “Analysis of differential gene expression in a mouse model for Marfan Syndrome with phenotypic variability”.

2017 - 2019. Masters research scholarship by the Sao Paulo Research Foundation (FAPESP). Project: “Characterization of the role of Hspg2 gene as a modulator of cardiovascular and skeletal phenotypes in Marfan Syndrome”.

PARTICIPATION IN SCIENTIFIC EVENTS/COURSES

2020. 49th Annual AGE meeting (online).

Talk: Using genetically diverse mice to define transcript and protein dynamics in the aging heart. Gyuricza,I.G.; Chick, J.M.; Keele, G.R.; Deighan, A.G.; Munger, S.C.; Korstanje, R.; Gygi, S.P.; Churchill, G.A.

2020. TAGC 2020 (online).

Poster presentation: Using genetically diverse mice to define transcript and protein dynamics in the aging heart. Gyuricza,I.G.; Chick, J.M.; Keele, G.R.; Deighan, A.G.; Munger, S.C.; Korstanje, R.; Gygi, S.P.; Churchill, G.A.

2019. 17th Meeting of the Complex Traits Community, USA.

Talk: Differential gene and protein expression in the aging heart of Diversity Outbred mice. Gyuricza,I.G.; Choi, K.; Pham, D.; Deighan, A.; Churchill, G.A.

2018. The American Society of Human Genetics (ASHG 2018), USA.

Poster presentation: Characterization of vascular phenotypic variability in a non-isogenic mouse model for Marfan Syndrome. Gyuricza, I.G.; Souza, R.B.; Fernandes, G.R.; Farinha-Arcieri, L.E.; Koh, I.H.J.; Pereira, L.V.

2017. Class taught: "Exome and Genome". Postgraduate program of Gastroenterology and Pediatric Hepatology - School of Medicine of University of São Paulo (USP), Brazil.

2017. Human and Mammalian Genetics and Genomics: The 58th McKusick Short Course". The Jackson Laboratory, USA.

Poster presentation: Analysis of *Hspg2* and *Fbn1* expression in the modulation of phenotypic variability in two mice strains. Gyuricza, I.G.; Souza, R.B.; Farinha-Arcieri, L.E.; Fernandes, G.R.; Pereira, L.V.

2016. I Workshop of Genome Structure and Expression, Federal University of São Paulo (UNIFESP), Brazil.

Talk: Characterization of the role of *Hspg2* gene as a modulator of cardiovascular and skeletal phenotypes in Marfan Syndrome. Gyuricza, I.G.; Souza, R.B.; Farinha-Arcieri, L.E.; Fernandes, G.R.; Pereira, L.V.

2015. XII Conference to Biology Students (XII CAEB), State University of Campinas (UNICAMP), Brazil.

Poster presentation: *TCL1* contribution to pluripotent and tumorigenic properties of induced pluripotent stem cells (iPS). Gyuricza, I.G.; Malta, T.M.; Magalhães, D.A.R.; Neder, L.; Covas, D.T.; Kashima, S.

2015. Gene therapy for cancer course. XII Conference to Biology Students (XII CAEB), State University of Campinas (UNICAMP), Brazil.

2015. Brazilian conference for Hematology, Hemotherapy and Cell Therapy (HEMO 2015), Brazil.

Poster presentation: Molecular and functional characterization of induced pluripotent stem cells (iPS). Gyuricza, I.G.; Malta, T.M.; Souza, L.E.B.; Magalhães, D.A.R.; Orellana, M.D.; Neder, L.; Covas, D.T.; Kashima, S.

2014. XXII Undergraduate Research Symposium at the University of São Paulo (XXII SIICUSP), Brazil.

Poster presentation: Molecular characterization of induced pluripotent stem cells (iPS). Gyuricza, I.G.; Rodrigues, E.S.; Orellana, M.D.; Magalhães, D.A.R.; Malta, T.M.; Kashima, S.

2014. II Cell Culture course of College of Pharmaceutical Sciences of Ribeirão Preto - University of São Paulo, Brazil

2013. XXI Undergraduate Research Symposium at the University of São Paulo, Brazil.

Poster presentation: Teratoma formation assay for evaluating pluripotency of induced pluripotent stem cells (iPS). Gyuricza, I.G.; Malta, T.M.; Souza, L.E.B.; Kashima, S.

2013. Brazilian Association for Cellular Therapy (ABTCel). Theoretical Course: Stem cells: From quality control to novel derivation procedures. Rio de Janeiro, Brazil.

2012. Animals models for fear and anxiety course. XXX Annual Meeting of Ethology e III Latin American Symposium of Ethology, Brazilian Society of Ethology (SBET), Brazil.

2012. Biotechnology applications course. XL Week of Biological Studies of College of Philosophy, Sciences and Letters of Ribeirão, University of São Paulo, Brazil.

PARTICIPATION IN SCIENTIFIC ABSTRACTS

2018. 10th International Research Symposium on Marfan Syndrome and related disorders, The Netherlands.

Poster presentation: Disruption of the elastic fibers in the ocular system of mouse model for Marfan Syndrome. Souza, R.B.; Gyuricza, I.G.; Farinha-Arcieri, L.E.; Liberatore, A.M.A.; Martins, A.M.C.R.P.F.; Catroxo, M.H.B.; Tedesco, R.C.; Smith, R.; Koh, I.H.J.; Pereira, L.V.

2016. Brazilian congress of Hematology, Hemotherapy and Cell Therapy (HEMO 2016), Brazil.

Poster presentation: Characterization of mesenchymal cells derived from induced pluripotent stem cells (iPS). Costa, P.N.M.; Malta, T.M.; Gyuriza, I.G.; Ferreira, A.R.; Caruso, S.R.; Tozetti, P.A.; Goday, A.L.C; Orellana, M.D.; Menezes, C.C.O.; Covas, D.T.; Kashima, S.

2016. Brazilian congress of Hematology, Hemotherapy and Cell Therapy (HEMO 2016), Brazil.

Poster presentation: Generation of induced pluripotent stem cells with defined phenotype for blood transfusions. Catelli, L.F.; Eis, L.C.I.; Melo, F.U.F.; Gyuricza, I.G.; Sobral, L.M.; Ferreira, A.R.; Rodrigues, E.S.; Leopoldino, A.M.; Covas, D.T.; Kashima,S.

VOLUNTEER SCIENTIFIC ACTIVITIES

2017. Graduate teaching assistant for Genetics and Evolution undergraduate course, University of São Paulo, Brazil.

2017. Public scientific exposition entitled “Bio na Rua” as part of the University extension project, College of Philosophy, Sciences and Letters of Ribeirão Preto, University of São Paulo, Brazil.

2016. Assistant for pluripotent cells course at VXI Summer Course: Genome, Proteome and Cellular Universe at Fundação Hemocentro de Ribeirão Preto, University of São Paulo, Brazil.

2015. Scientific and educational project developed for elementary school students as part of the program “Casa da Ciência” at Fundação Hemocentro de Ribeirão Preto, University of São Paulo, Brazil.