**CURRICULUM VITAE**

**Isabela Gerdes Gyuricza**

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**EDUCATION**

**2017 - 2019.** MSc in Genetics at the Genetics and Evolutionary Biology Department - Biosciences Institute – University of São Paulo, São Paulo, Brazil.

**2012 - 2016.** BSc in Biology at the College of Philosophy, Sciences and Literature of Ribeirão Preto – University of São Paulo, Ribeirão Preto, Brazil.

**RESEARCH EXPERIENCE**

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

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

Skills: R; bash; RNA sequencing and proteome analysis and processing; Quantitative Trait Loci (QTL) mapping; statistics modeling; data visualization; computational biology; writing reports and manuscripts.

**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, 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; RNA sequencing and proteome data analysis; QTL mapping; statistics; computational biology; writing reports.

**2017 – 2019**. Master’s student at the Genetics and Evolutionary Biology Department.

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

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

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

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

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

**CONTINUING EDUCATION**

**2021.** Good with Words: Writing and Editing Specialization, University of Michigan - (Coursera).

**LANGUAGE SKILLS**

Portuguese (native); English (fluent).

**PUBLICATIONS**

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. *eLife*, 2021. DOI: 10.7554/eLife.62585

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 mgΔlpn mouse model for Marfan syndrome recapitulates the ocular phenotypes of the disease. *Experimental Eye Research*, 2021. DOI: 10.1016/j.exer.2021.108461

**Preprint:** Choi, K; He, H; Gatti, DM; Philip, VM; Raghupathy, N; Gerdes Gyuricza, I; Munger, SC; Chesler, EJ; Churchill, GA. Genotype-free individual genome reconstruction of Multiparental Population Models by RNA sequencing data. *bioRxiv*, 2020. DOI: 10.1101/2020.10.11.335323

**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. DOI: 10.1101/2020.08.28.272260

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. DOI: 10.1038/s41431-020-0666-0

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. DOI: 10.1155/2017/7492914

**HONORS, AWARDS AND FUNDINGS**

**2021.** Scholarship from the University of Washington to attend to the 2021 Online Summer Institute in Statistical Genetics (SISG).

**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. The Jackson Laboratory, Bar Harbor, USA.

**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. University of São Paulo, São Paulo, Brazil.

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

**Jan 2016 – May 2016**. Undergraduate research scholarship by the National funding agency (CNPq). Project: Molecular and functional characterization of induced pluripotent stem cells (iPS). University of São Paulo, Ribeirão Preto, Brazil.

**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). University of São Paulo, Ribeirão Preto, Brazil.

**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). University of São Paulo, Ribeirão Preto, Brazil.

**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, San Diego, 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), San Diego, 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 at the Federal University of São Paulo, São Paulo, Brazil.

**2017.** Human and Mammalian Genetics and Genomics: The 58th McKusick Short Course”. The Jackson Laboratory, Bar Harbor, 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, Ribeirão Preto, 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, Campinas, 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 course. XII Conference to Biology Students (XII CAEB), State University of Campinas, Campinas, Brazil.

**2015**. Brazilian conference for Hematology, Hemotherapy and Cell Therapy (HEMO 2015), São Paulo, 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 International Research Symposium at the University of São Paulo (XXII SIICUSP), Ribeirão Preto, 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, Ribeirão Preto, Brazil

**2013**. XXI Undergraduate International Research Symposium at the University of São Paulo, Ribeirão Preto, 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.** Stem cells - From quality control to novel derivation procedures course. Brazilian Association for Cellular Therapy (ABTCel), 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), Ribeirão Preto, Brazil.

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

**PARTICIPATION IN SCIENTIFIC ABSTRACTS**

**2018.** 10th International Research Symposium on Marfan Syndrome and related disorders, Amsterdam, 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), Florianópolis, 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), Florianópolis, 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**

**2021.** Class taught: “Using omics data to unravel the molecular dynamics of the aging heart”. Data Science Club – University of Connecticut (Online).

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

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