



Eiríkur Steingrímsson, PhD

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Personal Information

Date of birth: July 19, 1960
Place of birth: Reykjavík, Iceland
Marital status: Married, 2 daughters

Education

Ph.D.	Biology, University of California, Los Angeles, 1992
B.S.	Genetics (Honors), University of Iceland, 1986
B.S.	Biology, University of Iceland, 1985

Background and experience

2005-present	Professor, Department of Biochemistry and Molecular Biology, Faculty of Medicine, University of Iceland, Reykjavík, Iceland.
2020- 2022	Chair of European Molecular Biology Laboratory (EMBL) Council.

- 2005-present Delegate of Iceland at the European Molecular Biology Laboratory (EMBL) Council. Vice chair, 2017-2020.
- 2002-present Delegate of Iceland at the European Molecular Biology Conference (EMBC). Vice chair, 2017-2020.
- 2014-present Visiting Professor, University of Tsukuba, Japan.
- 2013-2016 Chair, BioMedical Center, University of Iceland
- 1997-2005 Research Professor, Department of Biochemistry and Molecular Biology, Faculty of Medicine, University of Iceland, Reykjavík, Iceland.
- 2019-present Chair, Scientific Expert Panel, Science Fund of the Icelandic Cancer Society.
- 2021 Panel Member, Midterm Review of Flagship programmes of Akademi Finland.
- 2022 Panel Member, Midterm Review of Flagship programmes of Akademi Finland.
- 2019-present Member, Scientific Committee, Nordic Cancer Union.
- 2019-present Panel Member, Expert Panel, Research Council of Norway.
- 2011-2018 Panel Member, Study section on Biology of Cancer, Institute National de Cancer, France.
- 2012-2013 Panel Member, Study section on Melanoma, Institute National de Cancer, France.
- 2010-2012 Chair, study section on Science and Technology, Nordforsk.
- 2009-2011 Panel member, study section on Collaborations, Swedish Research Council.
- 2005-2009 Panel member, study section on Science and Technology, Nordforsk.
- 2003-2005 Chair, study section on Biomedical Sciences, Research Fund of Iceland.
- 2000-2005 Chief Scientific Officer, Iceland Genomics Corporation (IGC is now a component of Decode Genetics).
- 1993 - 1997 Postdoctoral Fellow, Mammalian Genetics Laboratory ABL-Basic Research Program, Frederick Cancer Research and Development Center, Frederick, Maryland.

- 1992 Visiting Lecturer, Department of Biology, UCLA. Organized and taught the course Introduction to Genetics (Bio 8).
- 1986 - 1992 Graduate Student, Department of Biology, UCLA, and Teaching Assistant, Department of Biology, UCLA, Los Angeles, California.
- 1988 EMBO practical course on Drosophila embryology, organized by Dr. Christiane Nüsslein-Volhard in Tübingen, Germany, August 14-27, 1988.
- 1985 - 1986 Independent Research Project, Institute for Experimental Pathology, Keldur, Iceland and Teaching Assistant, Department of Chemistry, University of Iceland.
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Honors and Awards

- 2016 PASPCR Lerner Award at the “XX Annual Meeting of the PanAmerican Society for Pigment Cell Research“ held in Baltimore, Maryland, 5.-8. October 2016
- 2009 Award from the Thordur Harðarson and Árni Kristinsson Research Fund
- 2004 EMBO member
- 2000 Young Investigator Award, Icelandic Research Council.
- 1995 NATO Science Fellowship
- 1992 Scherbaum Award, Department of Biology, UCLA
- 1990 Dr. Ursula Mandel Scholarship, UCLA
- 1986 Grant from the Helga K. Jónsdóttir and Sigurliði Kristjánsson Memorial Fund
- 1986 Grant from the Charles K. Wiley Fund
- 1986 Fulbright Graduate Student Grant
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Postdocs

Alexander Schepsky
Margrét Helga Ögmundsdóttir
Valerie Fock
Sara Sigurbjörnsdóttir
Ben Sorum
Berglind Ósk Einarsdóttir
Freyja Imsland
Ramile Dilshat

Students

Graduated from my laboratory:

PhD students

Jón Hallsteinn Hallsson, PhD, 2006
Alexander Schepsky, PhD, 2007

Benedikta S. Hafliðadóttir, PhD, 2010
Christine Grill, PhD, 2013
Bengt Phung, PhD, 2013 (joint with Lars Rönstrand, Lund University)
Christian Praetorius, PhD, 2014
Diahann Atacho, PhD, 2018 (joint with Pétur Henry Petersen, University of Iceland)
Josue Ballesteros Alvarez, PhD, 2019
Óskar Örn Hálfðánarson, PhD, 2019
Remina Dilixiati, PhD, 2019
Hong Nhung Vu, PhD, 2023

MS students

Gunnar Jóhannes Gunnarsson, MS; 2001
Aðalheiður Gígja Hansdóttir, MS, 2004
Christian Praetorius, Diploma (Freie Universitaet, Berlin), 2005
Bryndís Krogh Gísladóttir, MS, 2006
Jónína Jóhannsdóttir, MS, 2006
Georg Bauer, MS (Fachhochschule Wien), 2008
Anna Þóra Pétursdóttir, 2010
Sigurður Rúnar Guðmundsson, 2015
Katrín Möller, 2016
Ásgeir Örn Arnþórsson, 2017
Hilmar Örn Gunnlaugsson Nielsen, 2019
Lara Stefansson, 2019
Elín Sóley Sigurbjörnsdóttir, 2021.
Valdís Huld Jónsdóttir, 2021
Eyvindur Árni Sigurðarson, 2022
Matthías Már Valdimarsson, 2023 (joint with Pétur Orri Heiðarsson)

Current students in my laboratory:

Romain Lasseur, PhD expected in 2024
Seyedeh Parinaz Mahdavi, PhD expected in 2025
Evangeline Breeta Raja David Isac, PhD expected in 2024
Lilit Ghukasyan, PhD expected in 2025

On PhD or MS committees of the following students:

Helga Bjarnadóttir, PhD, 2007
Helga Margrét Pálsdóttir, PhD, 2006
Birkir Þór Bragason, PhD, 2006
Kristbjörn Orri Guðmundsson, PhD, 2005
Silja Dögg Andradóttir, MS, 2006
Snorri Páll Davíðsson, MS, 2005
Bryndís Björnsdóttir, MS, 2004
Jonas Steinmann, MS 2008
Helga Eyja Hrafnkelsdóttir, MS, 2009
Stefán Ragnar Jónsson, PhD, 2009
Marteinn Þór Jónsson, MS, 2010
Martin Ingi Sigurðsson, PhD, 2011
Lena Valdimarsdóttir, MS, 2013

Jóhann Frímánn Rúnarsson, MS; 2013
Sævar Ingþórsson, PhD, 2014
Margrét Bessadóttir, PhD, 2014
Ari Jón Arason, PhD, 2016
Bylgja Hilmarsdóttir, PhD, 2016
Amaranta Úrsula Amesto Jimenez, PhD, 2018
Hallur Reynisson, MS, 2018
Ástrós Skúladóttir, MS 2019
Andrea Garcia Llorca, PhD 2020
Alba Sabate, MS 2019
Zuzana Budkova, PhD graduated 2021
Fatich Mechet, PhD expected 2024
Abbi Smith, PhD expected 2024
Salvör Rafnsdóttir, PhD expected 2024
Tinna Reynisdóttir, PhD expected 2025

Publications

Research papers and reviews

Pignoni, F., Baldarelli, R.M., **Steingrímsson, E.**, Diaz, R.J., Patapoutian, A., Merriam, J.R. and Lengyel, J.A. 1990. The *Drosophila* gene *tailless* is expressed at the embryonic termini and is a member of the steroid receptor superfamily. *Cell* **62**: 151-163.

Steingrímsson, E., Pignoni, F., Liaw, G-J. and Lengyel, J.A. 1991. Dual role of the *Drosophila* gene *tailless* in the embryonic termini. *Science* **254**: 418-421.

Pignoni, F., **Steingrímsson, E.** and Lengyel, J.A. 1992. *bicoid* and the terminal system activate *tailless* expression in the early *Drosophila* embryo. *Development* **115**: 239-251.

Liaw, G-J., **Steingrímsson, E.**, Pignoni, F. Courey, A.J., & Lengyel, J.A. 1993. Characterization of downstream elements in a Raf-1 pathway. *Proc. Natl. Acad. Sci. USA* **90**: 858-862.

Hodgkinson, C.A., Moore, K.J., Nakayama, A., **Steingrímsson, E.**, Copeland, N.G., Jenkins, N.A. and Arnheiter, H. 1993. Mutations at the mouse *microphthalmia* locus are associated with defects in a gene encoding a novel bHLH-zip protein. *Cell* **74**: 395-404.

Edelhoff, S., Ayer, D.E., Zervos, A.S., **Steingrímsson, E.**, Jenkins, N.A., Copeland, N.G., Eisenman, R.N., Brent, R. and Disteché, C.M. 1994. Mapping of two genes encoding members of a distinct subfamily of MAX interacting proteins: MAD to human chromosome 2 and mouse chromosome 6, and MXII to human chromosome 10 and mouse chromosome 19. *Oncogene* **9**: 665-668.

Mallo, M., **Steingrímsson, E.**, Copeland, N.G., Jenkins, N.A. and Gridley, T. 1994. Genomic organization, alternative polyadenylation, and chromosomal localization of *Grg*, a mouse gene related to the *groucho* transcript of the *Drosophila Enhancer of split* complex. *Genomics* **21**: 194-201.

Steingrímsson, E., Moore, K.J., Lamoreux, M.L., Ferré-D'Amaré, A.R., Burley, S.K., Sanders-Zimring, D.C., Skow, L.C., Hodgkinson, C.A., Arnheiter, H., Copeland, N.G. and Jenkins, N.A. 1994. Molecular basis of mouse *microphthalmia* (*mi*) mutations helps explain their developmental and phenotypic consequences. *Nature Genetics* **8**: 256-263.

Hemesath, T.J., **Steingrímsson, E.**, McGill, G., Hansen, M.J., Vaught, J., Hodgkinson, C.A., Arnheiter, H., Copeland, N.G., Jenkins, N.A. and Fisher, D.E. 1994. *microphthalmia*, a critical factor in melanocyte development, defines a discrete transcription factor family. *Genes and Development* **8**: 2770-2780.

Blanar, M.A., Crossley, P.H., Peters, K.G., **Steingrímsson, E.**, Copeland, N.G., Jenkins, N.A., Martin, G.A. and Rutter, W.J. 1995. Mesol1, a bHLH protein involved in mammalian presomitic mesoderm development. *Proc. Natl. Acad. Sci. USA*, **92**:5870-5874.

- Margolis, J.S., Borowsky, M.L., **Steingrímsson, E.**, Shim, C.W., Lengyel, J.A. and Posakony, J.W. 1995. Posterior stripe expression of *hunchback* is driven from two promoters by a common enhancer element. *Development*, **121**:3067-3077.
- Steingrímsson, E.**, Sawadogo, M., Gilbert, D.J., Zervos, A.S., Brent, R., Blanar, M.A., Fisher, D.E., Copeland, N.G. and Jenkins, N.A. 1995. Murine chromosomal location of five bHLH-Zip transcription factor genes. *Genomics*, **28**:179-183.
- Cross, J.C., Flannery, M.L., Blanar, M.A., **Steingrímsson, E.**, Jenkins, N.A., Copeland, N.G., Rutter, W.J. and Werb, Z. 1995. *Hxt* encodes a basic helix-loop-helix transcription factor that regulates trophoblast cell development. *Development*, **121**:2513-2523.
- Hurlin, P.J., Quéva, C., Koskinen, P.J., **Steingrímsson, E.**, Ayer, D.E., Copeland, N.G., Jenkins, N.A. and Eisenmann, R.N. 1995. Mad3 and Mad4: Novel Max-interacting transcriptional repressors that suppress c-Myc dependent transformation and are expressed during neural and epidermal differentiation. *EMBO Journal*, **14**:5646-5659.
- Nii, A., **Steingrímsson, E.**, Copeland, N.G., Jenkins, N.A. and Ward, J.M. 1995. Mild osteopetrosis in the *Microphthalmia Oak Ridge (Mi^{Or})* mouse: A model for intermediate autosomal recessive osteopetrosis in humans. *American Journal of Pathology*, **147**:1871-1882.
- Tamimi, R., **Steingrímsson, E.**, Copeland, N.G., Dyer-Montgomery, K., Lee, J.E., Hernandez, R., Jenkins, N.A. and Tapscott, S.J. 1996. The NEUROD gene maps to human chromosome 2q32 and mouse chromosome 2. *Genomics*, **34**:418-421.
- Steingrímsson, E.**, Nii, A., Fisher, D.E., Ferré-D'Amaré, A.R., McCormick, R.J., Russell, L.B., Burley, S.K., Ward, J.M., Jenkins, N.A., and Copeland, N.G. 1996. The semidominant *Mi^b* mutation identifies a role for the HLH domain in DNA binding in addition to its role in protein dimerization. *EMBO Journal*, **15**: 6280-6289.
- Tamimi, R.M., Montgomery-Dyer, K., **Steingrímsson, E.**, Copeland, N.G., Jenkins, N.A., and Tapscott, S.J. 1996. *NEUROD2* and *NEUROD3* genes map to human chromosomes 17q12 and 5q23-31 and mouse chromosomes 11 and 13, respectively. *Genomics*, **40**:355-357.
- Zimmermann, J.E., Bui, Q.T., **Steingrímsson, E.**, Nagle, D.L., Fu, W., Genin, A., Spinner, N.B., Copeland, N.G., Jenkins, N.A., Bucan, M., and Bonini, N.M., 1997. Cloning and characterization of two vertebrate homologs of the *Drosophila eyes absent* gene. *Genome Research*, **7**:128-141.
- Steingrímsson, E.**, Favor, J., Ferré-D'Amaré, A.R., Copeland, N.G., and Jenkins, N.A. 1998. The new *microphthalmia* mutation *Mit^{fmi-enu122}* is a point mutation in the helix-loop-helix domain. *Mammalian Genome*, **9**:250-252.
- Steingrímsson, E.**, Tessarollo, L., Reid, S.W., Copeland, N.G., and Jenkins, N.A. 1998. The bHLHZip transcription factor *Tfeb* is essential for placental vascularization. *Development*, **125**: 4607-4616.

- Mao, N.-C., **Steingrímsson, E.**, Duhadaway, J., Wasserman, W., Ruiz, J.C., Copeland, N.G., Jenkins, N.A. and Prendergast, G.C. 1999. The murine *Bin1* gene functions early in myogenesis and defines a new region of synteny between mouse chromosome 18 and human chromosome 2. *Genomics*, **56**:51-58.
- Hurlin, P.J., **Steingrímsson, E.**, Copeland, N.G., Jenkins, N.A., and Eisenman, R.N. 1999. Mga, a dual-specificity transcription factor that interacts with Max and contains a T-domain DNA binding motif. *EMBO Journal*, **18**:7019-7028.
- Hallsson, J.H., Favor, J., Hodgkinson, C., Glaser, T., Lamoreux, M.L., Magnúsdóttir, R., Sweet, H.O., Copeland, N.G., Jenkins, N.A. and **Steingrímsson, E.**, 2000. Genomic, transcriptional and mutational analysis of the mouse *microphthalmia* locus. *Genetics*, **155**:291-300.
- Kristinsson, S.Y., Thorolfsdóttir, E.T., Talseth, B., **Steingrímsson, E.**, Thorsson, A.V., T. Helgason, Hreidarsson, A.B., Arngrimsson, R. 2001. MODY in Iceland is associated with mutations in HNF-1a and a novel mutation in NeuroD1. *Diabetologia*, **44**:2098-2103.
- Steingrímsson, E.**, Tessarollo, L., Pathak, B., Hou, L., Arnheiter, H., Copeland, N.G., and Jenkins, N.A. 2002. *Mitf* and *Tfe3*, two members of the Mitf-Tfe family of bHLH-Zip transcription factors, have important but functionally redundant roles in osteoclast development. *Proc. Natl. Acad. Sci.USA* **99**: 4477-4482.
- Guðjónsson, Þ. and **Steingrímsson, E.** Eiginleikar stofnfruma: frumusérhæfing og ný meðferðarúræði? 2003. *The Icelandic Medical Journal*, **89**:43-48.
- Steingrímsson, E.**, Arnheiter, H., Hallsson, J.H., Lamoreux, M.L., Copeland N.G., and Jenkins, N.A. 2003. Interallelic complementation at the mouse *Mitf* locus. *Genetics*, **163**:267-276.
- Möller, A., Eysteinnsson, T. and **Steingrímsson, E.** 2004. Electroretinographic and histologic assessment of retinal function in *microphthalmia* mutant mice. *Experimental Eye Research*, **78**:837-848.
- Hansdóttir, A.G., Pálsdóttir, K., Favor, J., Hrabé de Angelis, M., **Steingrímsson E.** 2004. The mouse *microphthalmia* mutations *Mitf^{mi-enu5}* and *Mitf^{mi-bcc2}* carry an identical missense mutation in the DNA binding domain. *Genomics*, **83**:932-935.
- Hallsson, J.H., Hafliadóttir, B.S., Stivers, C., Odenwald, W., Pignoni, F., Heinz Arnheiter, H., and **Steingrímsson, E.**, 2004. The structure, expression and function of the bHLH-Zip transcription factor *Mitf* are conserved in *Drosophila*. *Genetics*, **167**:233-241.
- Rafnar, T., Thorlacius, S., **Steingrímsson, E.**, Schierup, M.H., Madsen, J.N., Calian, V., Eldon, B.J., Jonsson, T., Hein, J., and Thorgeirsson, S.S.. 2004. The Icelandic Cancer Project – a population wide approach to studying cancer. *Nature Reviews Cancer*, **4**: 488-92.
- Steingrímsson, E.**, Copeland, N.G., and Jenkins, N.A. 2004. Melanocytes and the *Microphthalmia* transcription factor network. *Annual Review of Genetics*, **38**: 365-411.

- Rafnar, T., Benediktsdóttir, K.R., Eldon, B.J., Gestsson, T., Saemundsson, H., Olafsson, K., Salvarsdóttir, A., **Steingrímsson, E.**, and Thorlaciuss, S., 2004. *BRCA2*, not *BRCA1* mutations account for familial ovarian cancer in Iceland: a population-based study. *European Journal of Cancer*, **40**: 2788-93.
- Steingrímsson, E., Copeland, N.G., and Jenkins, N.A. 2005. Melanocyte stem cell maintenance and hair graying. *Cell*, **121**: 9-12.
- Rehli, M., Sulzbacher, S., Pape, S., Ravasi, T., Wells, C.A., Heinz, S., Söllner, L., El Chartouni, C., Krause, S.W., **Steingrímsson, E.**, Hume, D.A., Andreesen, R. 2005. Transcription factor Tfec is induced by interleukin 4 and contributes to the inducible expression of the granulocyte colony-stimulating factor receptor in murine macrophages. *Journal of Immunology*, **174**:7111-22.
- Stefansson, T.B., Moller, P.H., Sigurdsson, F., **Steingrímsson, E.**, and Eldon, B.J. 2006. Familial risk of colon and rectal cancer in Iceland. *International Journal of Cancer*, **119**:304-8.
- Eldon, B.J., Thorlaciuss, S., Jónsson, T., Jónasson, J.G., Kjartansson, J., Böðvarsson, S., **Steingrímsson, E.**, and Rafnar, T. 2006. A population-based study on the familial aggregation of cutaneous malignant melanoma in Iceland. *European Journal of Cancer*, **42**:922-6.
- Bataillon, T., Mailund, T., Thorlaciuss, S., **Steingrímsson, E.**, Rafnar, T., Halldorsson, M.M., Calian, V., Schierup, M.H. 2006. The effective size of the Icelandic population and the prospects for LD mapping: inference from unphased microsatellite markers. *Eur J Hum Genet*, **14**:1044-1053.
- Steingrímsson, E.**, Copeland, N.G. and Jenkins, N.A. 2006. Mouse coat color mutations: From fancy mice to functional genomics. *Dev Dyn*, **235**:2401-2411.
- Schepsky, A., Bruser, K., Goding, C.R., Gunnarsson, G.J., Hecht, A. and **Steingrímsson, E.** 2006. Functional interactions between the microphthalmia associated transcription factor MITF and β -catenin. *Molecular and Cellular Biology*, **26**:8914-27.
- Steingrímsson, E. 2006. Umritunarþættir og litfrumur stofnfruma. In: "Vísindin heilla. Afmælisrit til heiðurs Sigmundi Guðbjarnarsyni 75 ára". Ed. Haraldsson G.G. Háskólaútgáfan, Reykjavík.
- Hsu, J.C., Chang, J., Wang, T., **Steingrímsson E.**, Magnússon, M.K. and Bergsteinsdóttir, K. 2007. Statistically designing microarrays and microarray experiments to enhance sensitivity and specificity. *Briefings in Bioinformatics*, **8**:22-31.
- Hallsson, J.H., Hafliðadóttir, B.S., Schepsky, A. Arnheiter, H. and **Steingrímsson, E.** 2007. Evolutionary sequence comparison of the *Mitf* gene reveals novel conserved domains. *Pigment Cell Research*, **20**: 185-200.

- Bismuth, K., Skuntz, S., Hallsson, J.H., Dutra, A.S., **Steingrímsson, E.**, and Arnheiter, H. 2008. An unstable targeted allele of the mouse *Mitf* gene with a high somatic and germ line reversion rate. *Genetics*, **178**: 259-272.
- Steingrímsson, E.** 2008. All for one, one for all: alternative promoters and *Mitf*. *Pigment Cell Melanoma Res.* **21**:412-4.
- Hoek, K.S., Schlegel, N.C., Eichhoff, O.M., Widmer, D.S., Praetorius, C., Einarsson, S.O., Valgeirsdottir, S., Bergsteinsdottir, K., Schepsky, A., Dummer, R., **Steingrímsson, E.** 2008. Novel MITF targets identified using a two-step DNA microarray strategy. *Pigment Cell Melanoma Res.* **21**:665-76.
- Bauer, G.L., Praetorius, C., Bergsteinsdóttir, K., Hallsson, J.H., Gísladóttir, B.K., Schepsky, A., Swing, D.A., O'Sullivan, T.N., Arnheiter, H., Bismuth, K., Debbache, J., Fletcher, C.F., Warming, S., Copeland, N.G., Jenkins, N.A., **Steingrímsson, E.** 2009. The Role of MITF Phosphorylation for Coat Color and Eye Development in Mice Analyzed by BAC Transgene Rescue. *Genetics*. **183**(2):581-94.
- Hsu, J. C., Chang, J., Wang, T., Magnusson, M.K., Bergsteinsdottir, K., **Steingrímsson, E.** 2009. Design and Analysis of Microarray Experiments for Pharmacogenomics. Chapter 7, *Multiple Testing Problems in Pharmaceutical Statistics*, Alex Dmitrienko, Ajit C. Tamhane, Frank Bretz editors. Taylor and Francis.
- Haflidadóttir, B.S., Bergsteinsdóttir, K., Praetorius, C. and **Steingrímsson, E.** 2010. miR-148 Regulates *Mitf* in Melanoma Cells, *PLoSOne*. 5(7):e11574.
- Steingrímsson, E.** 2010. Interpretation of complex phenotypes: Lessons from the *Mitf* gene. *Pigment Cell Melanoma Res.* **23**:736-740.
- Sigurdsson, M.I., Jamshidi, N., **Steingrímsson, E.**, Thiele, I., Pálsson, B.Ø. 2010. A detailed genome-wide reconstruction of mouse metabolism based on human Recon 1. *BMC Syst. Biol.* 4:140.
- Phung B, Sun J, Schepsky A, **Steingrímsson E**, Rönnstrand L. 2011. C-KIT Signaling Depends on Microphthalmia-Associated Transcription Factor for Effects on Cell Proliferation. *PLoS One*. 2011;6(8):e24064.
- Pogenberg, V. Ögmundsdóttir, M.H. Bergsteinsdóttir, K. Schepsky, A. Phung, B. Deineko, V. Milewski, M. **Steingrímsson, E** & Wilmanns, M. 2012. Restricted leucine zipper dimerization and specificity of DNA recognition of the melanocyte master regulator MITF. *Genes and development*, 26:2647-2658.
- Steingrímsson, E.** 2012. Profile: Neal G. Copeland and Nancy A. Jenkins. *Pigment Cell and Melanoma Research*. 26:143.
- Sigurdsson V, Ingthorsson S, Hilmarsdottir B, Gustafsdottir SM, Franzdottir SR, Arason AJ, **Steingrímsson E**, Magnusson MK, Gudjonsson T. 2013. Expression and functional role of sprouty-2 in breast morphogenesis. *PLoS One*. 8(4):e60798

Styrkarsdóttir U, Thorleifsson G, Sulem P, Gudbjartsson DF, Sigurdsson A, Jonasdóttir A, Jonasdóttir A, Oddsson A, Helgason A, Magnusson OT, Walters GB, Frigge ML, Helgadóttir HT, Johannsdóttir H, Bergsteinsdóttir K, Ogmundsdóttir MH, Center JR, Nguyen TV, Eisman JA, Christiansen C, **Steingrímsson E**, Jonasson JG, Tryggvadóttir L, Eyjolfsson GI, Theodors A, Jonsson T, Ingvarsson T, Olafsson I, Rafnar T, Kong A, Sigurdsson G, Masson G, Thorsteinsdóttir U, Stefansson K. 2013. Nonsense mutation in the LGR4 gene is associated with several human diseases and other traits. *Nature*, 497;517-520

Christine Grill, Kristín Bergsteinsdóttir, Margrét H. Ögmundsdóttir, Vivian Pogenberg, Alexander Schepsky, Matthias Wilmanns, Veronique Pingault and **Eiríkur Steingrímsson**. 2013. MITF mutations associated with pigment deficiency syndromes and melanoma have different effects on protein function. *Hum Mol Genet*. 22:4357-67.

Phung, B., **Steingrímsson, E.** and Rönstrand, L. 2013. Differential activity of c-Kit splice forms is controlled by extracellular peptide insert length. *Cell Signal*. 2013 Jul 21;25(11):2231-2238

Christian Praetorius, Christine Grill, Simon N. Stacey, Alex M. Metcalf, David U. Gorkin, Kathleen C. Robinson, Eric Van Otterloo, Reuben S.Q. Kim, Kristin Bergsteinsdóttir, Margret H. Ogmundsdóttir, Erna Magnusdóttir, Pravin J. Mishra, Sean R. Davis, Theresa Guo, M. Raza Zaidi, Agnar S. Helgason, Martin I. Sigurdsson, Paul S. Melzer, Glenn Merlino, Valerie Petit, Lionel Larue, Stacie K. Loftus, David R. Adams, Ulduz Sobhifshar, N. C. Tolga Emre, William J. Pavan, Robert Cornell, Aaron G. Smith, Andrew S. McCallion, David E. Fisher, Kari Stefansson, Richard A. Sturm, **Eiríkur Steingrímsson**. 2013. IRF4 affects human pigmentation by regulating expression of Tyrosinase through a MITF and TFAP2A-dependent pathway. *Cell* 155(5):1022-33.

Guðjónsson, Þ. og **Steingrímsson, E.** 2013. Lífvísindasetur Háskóla Íslands – sameinaður vettvangur rannsókna í sameinda- og frumulíffræði. *Læknablaðið*, 99.

Ögmundsdóttir, M and **Steingrímsson E.** 2014. Selection, p53 and pigmentation. *Pigment Cell and Melanoma Research*. 27(2):154-5.

Praetorius C, Sturm R.A., **Steingrímsson E.** 2014. Sun-induced freckling: ephelides and solar lentigines. *Pigment Cell and Melanoma Research*. 27(3):339-50.

Ogmundsdóttir M H, **Steingrímsson E.** 2015. MITF regulation - more hints from Wnt. *Pigment Cell Melanoma Res*. 28:372-3.

Wagner RY, Luciani F, Cario-André M, Rubod A, Petit V, Benzekri L, Ezzedine K, Lepreux S, **Steingrímsson E**, Taieb A, Gauthier Y, Larue L, Delmas V. 2015. Altered E-Cadherin Levels and Distribution in Melanocytes Precede Clinical Manifestations of Vitiligo. *J Invest Dermatol*. 135:1810-9.

Tianyi Zhang, Qingxiang Zhou, Margret Helga Ogmundsdóttir, Robert Siddaway, Michael Hsing, Sek Won Kong, Colin Goding, Lionel Larue, Arnar Pálsson, **Eiríkur Steingrímsson**, Francesca Pignoni. 2015. MiT transcription factors as master regulators of the V-ATPase in Drosophila and vertebrates. *Journal of Cell Science*, 128: 2938-50.

- Gudjohnsen SA, Atacho DA, Gesbert F, Raposo G, Hurbain I, Larue L, **Steingrímsson E**, Petersen PH. 2015. Meningeal Melanocytes in the Mouse: Distribution and Dependence on Mitf. *Front Neuroanat.* **2015**;9:149. doi: 10.3389/fnana.2015.00149.
- Fock, V and **Steingrímsson E**. 2017. An eye on microphthalmia. *Pigment Cell Melanoma Res.* 30(3):280-281. doi: 10.1111/pcmr.12575.
- Phung B, Kazi JU, Lundby A, Bergsteinsdottir K, Sun J, Goding CR, Jönsson G, Olsen JV, **Steingrímsson E**, Rönnstrand L. 2017. KIT^{D816V} Induces SRC-Mediated Tyrosine Phosphorylation of MITF and Altered Transcription Program in Melanoma. *Mol Cancer Res.* 2017 Sep;15(9):1265-1274.
- Pallares LF, Ledevin R, Pantalacci S, Turner LM, **Steingrímsson E**, Renaud S. 2017. Genomic regions controlling shape variation in the first upper molar of the house mouse. *Elife.* 2017 Nov 1;6. pii: e29510. doi: 10.7554/eLife.29510
- Halfdanarson, O.O., Pottegard, A., Bjornsson, E.S., Lund, S.H., Ogmundsdottir, M.H, **Steingrímsson, E.**, Ogmundsdottir, H.M. and Zoega, H. 2018. Proton pump inhibitors among adults: A nationwide drug-utilization study. *Therapeutic Advances in Gastroenterology*, 11:1756284818777943. doi: 10.1177/1756284818777943.
- Fock, V., Gudmundsson, S.R., Gunnlaugsson, H.O. Stefansson, J.A., Ionasz, V., Schepsky, A., Viarigi, J., Reynisson I.E., Pogenberg, V., Wilmanns, M., Ogmundsdottir M.H., and **Steingrímsson, E.** 2019. Subcellular localization and stability of MITF are modulated by the bHLH-Zip domain. *Pigment Cell Melanoma Res.* 32(1):41-54. doi: 10.1111/pcmr.12721.
- Ogmundsdottir, M.H., Fock, V., Sooman, L., Pogenberg, V., Dilshat, R., Bindesboll, C., Ogmundsdottir, H.M., Simonsen, A., Wilmanns, M., **Steingrímsson, E.** 2018. A short isoform of ATG7 fails to lipidate LC3/GABARAP. *Sci Rep.* 8(1):14391. doi: 10.1038/s41598-018-32694-7.
- Ngeow, K.C., Friedrichsen, H.J., Li, L., Zeng, Z., Andrews, S., Volpon, L., Brunson, H., Berridge, G., Picaud, S., Fischer, R., Lisle, R., Knapp, S., Filippakopoulos, P., Knowles, H., **Steingrímsson, E.**, Borden, K.L.B., Patton, E.E., Goding, C.R. 2018. BRAF/MAPK and GSK3 signaling converges to control MITF nuclear export. *Proc Natl Acad Sci U S A.* 115(37):E8668-8677. doi: 10.1073/pnas.1810498115
- Styrkarsdottir U, Lund SH, Thorleifsson G, Zink F, Stefansson OA, Sigurdsson JK, Juliusson K, Bjarnadottir K, Sigurbjornsdottir S, Jonsson S, Norland K, Stefansdottir L, Sigurdsson A, Sveinbjornsson G, Oddsson A, Bjornsdottir G, Gudmundsson RL, Halldorsson GH, Rafnar T, Jonsdottir I, **Steingrímsson E**, Norddahl GL, Masson G, Sulem P, Jonsson H, Ingvarsson T, Gudbjartsson DF, Thorsteinsdottir U, Stefansson K. 2018. Meta-analysis of Icelandic and UK data sets identifies missense variants in SMO, IL11, COL11A1 and 13 more new loci associated with osteoarthritis. *Nat Genet* 50:1681-1687. doi: 10.1038/s41588-018-0247-0.
- Hálfðánarson ÓÖ, Fall K, Ogmundsdottir MH, Lund SH, **Steingrímsson E**, Ogmundsdottir HM, Zoega H. 2018. Proton pump inhibitor use and risk of breast cancer, prostate

cancer, and malignant melanoma: An Icelandic population-based case-control study. *Pharmacoepidemiol Drug Saf.* doi: 10.1002/pds.4702.

Ingason AB, Mehmet F, Atacho DAM, **Steingrímsson E**, Petersen PH. 2019. Distribution of mast cells within the mouse heart and its dependency on *Mitf*. *Mol. Immunol.* 105:9-15.

Möller K, Sigurbjörnsdóttir S, Arnthorsson AO, Pogenberg V, Dilshat R, Fock V, Brynjólfssdóttir SH, Bindesboll C, Bessadóttir M, Ogmundsdóttir HM, Simonsen A, Larue L, Wilmanns M, Thorsson V, **Steingrímsson E**, Ogmundsdóttir MH. 2019. MITF has a central role in regulating starvation-induced autophagy in melanoma. *Scientific Reports.* 9(1):1055. doi: 10.1038/s41598-018-37522-6.

García-Llorca, A., Aspelund, S.G., Ögmundsdóttir, M.H., **Steingrímsson, E.**, Eysteinnsson. T. 2019. The microphthalmia-associated transcription factor (*Mitf*) gene and its role in regulating eye function. *Scientific Reports* 9, 15386.

Jana Travnickova, Sonia Wojciechowska, Ava Khamseh, Philippe Gautier, Daniel V Brown, Thomas Lefevre, Alessandro Brombin, Ailith Ewing, Amy Capper, Michaela Spitzer, Ramile Dilshat, Colin A Semple, Marie E Mathers, James A Lister, Eiríkur Steingrímsson, Thierry Voet, Chris P Ponting, E Elizabeth Patton, 2019. Zebrafish MITF-Low Melanoma Subtype Models Reveal Transcriptional Subclusters and MITF-Independent Residual Disease. *Cancer Res* 79, 5769-5784.

Vivian Pogenberg, Josué Ballesteros-Álvarez, Romana Schober, Ingibjörg Sigvaldadóttir, Agnieszka Obarska-Kosinska, Morlin Milewski, Rainer Schindl, Margrét Helga Ögmundsdóttir, Eiríkur Steingrímsson, Matthias Wilmanns. 2020. Mechanism of Conditional Partner Selectivity in MITF/TFE Family Transcription Factors with a Conserved Coiled Coil Stammer Motif. *Nucleic Acids Res.* 48, 934-948.

Atacho, D.A.M., Reynisson, H., Pétursdóttir, A.P., Eysteinnsson, T., **Steingrímsson, E.**, Petersen, P.H. 2020. *Mitf* links neuronal activity and long-term homeostatic intrinsic plasticity. *eNeuro* 0412-19.2020; PMID: 32193365.

Bertrand, J.U., Steingrímsson, E., Jouenne, F., Bressac-de Aillerets, B. and Larue, L. 2020. Melanoma Risk and Melanocyte Biology. *Acta Derm Venereol.* 100(11). PMID: 32346747

Louphrasitthiphol, P., Siddaway, R., Loffreda, A. Pogenberg, V., Friedrichsen, H., Schepsky, A. Faria-Shayler, P., Zeng, Z., Lu, M., Strub, T., Freter, R., Lisle, R., Suer, E., Thomas, B., Schuster-Böckler, B., Filippakopoulos, P., Middleton, M., Lu, X., Patton, E.E., Davidson, I., Lambert, J-P., Wilmanns, M., Steingrímsson, E., Mazza, D., and Goding, C.R. 2020. Tuning transcription factor availability through acetylation-mediated genomic redistribution. *Molecular Cell*, PMID: 32531202.

Ballesteros-Alvarez, J., Dilshat, R, Fock, V., Möller, K., Karl, L., Larue, L, Ogmundsdóttir, MH, Steingrímsson, E. 2020. MITF and TFEB cross-regulation in melanoma cells. *PLOS ONE*, 15(9):e0238546. PMID: 32881934.

- Vu, H.N., Dilshat, R., Fock, V., Steingrímsson, E. 2020. User guide to MiT-TFE isoforms and post-translational modifications. *Pigment Cell and Melanoma Research*, DOI: 10.1111/pcmr.12922 PMID: 32846025
- Brownstein Z, Gulsuner S, Walsh T, Martins FTA, Taiber S, Isakov O, Lee MK, Bordeynik-Cohen M, Birkan M, Chang W, Casadei S, Danial-Farran N, Abu-Rayyan A, Carlson R, Kamal L, Arnthórsson AÖ, Sokolov M, Gilony D, Lipschitz N, Frydman M, Davidov B, Macarov M, Sagi M, Vinkler C, Poran H, Sharony R, Samra N, Zvi N, Baris-Feldman H, Singer A, Handzel O, Hertzano R, Ali-Naffaa D, Ruhrman-Shahar N, Madgar O, Sofrin-Drucker E, Peleg A, Khayat M, Shohat M, Basel-Salmon L, Pras E, Lev D, Wolf M, Steingrímsson E, Shomron N, Kelley MW, Kanaan MN, Allon-Shalev S, King MC, Avraham KB. 2020. Spectrum of genes for inherited hearing loss in the Israeli Jewish population, including the novel human deafness gene ATOH1. *Clin Genet*. 98(4):353-364. PMID: 33111345.
- Dilshat R, Fock V, Kenny C, Gerritsen I, Lasseur RMJ, Travnickova J, Eichhoff OM, Cerny P, Möller K, Sigurbjörnsdóttir S, Kirty K, Einarsdóttir BÓ, Cheng PF, Levesque M, Cornell RA, Patton EE, Larue L, de Tayrac M, Magnúsdóttir E, Helga Ögmundsdóttir M, Steingrímsson E. 2021. MITF reprograms the extracellular matrix and focal adhesion in melanoma. *Elife*. 10:e63093. PMID: 33438577.
- Dilshat R, Vu HN, Steingrímsson E. 2021. Epigenetic regulation during melanocyte development and homeostasis. *Exp Dermatol*. doi: 10.1111/exd.14391. PMID: 34003523
- Tongwu Zhang, Jiyeon Choi, Ramile Dilshat, Berglind Ósk Einarsdóttir, Michael A Kovacs, Mai Xu, Michael Malasky, Salma Chowdhury, Kristine Jones, D Timothy Bishop, Alisa M Goldstein, Mark M Iles, Maria Teresa Landi, Matthew H Law, Melanoma Meta-Analysis Consortium, Christopher N Foley, Jianxin Shi, Eiríkur Steingrímsson, Kevin M Brown. 2021. Cell-type specific meQTL extends melanoma GWAS annotation beyond eQTL and informs melanocyte gene regulatory mechanisms. *Am J Hum Genet*. 108(9):1631-1646. PMID: 34293285.
- Hamm M, Sohier P, Petit V, Raymond JH, Delmas V, Le Coz M, Gesbert F, Kenny C, Aktary Z, Pouteaux M, Rambow F, Sarasin A, Charoenchon N, Bellacosa A, Sanchez-Del-Campo L, Mosteo L, Lauss M, Meijer D, Steingrímsson E, Jönsson GB, Cornell RA, Davidson I, Goding CR, Larue L. 2021. BRN2 is a non-canonical melanoma tumor-suppressor. *Nat Commun* 12(1):3707. PMID: 34140478.
- Kenny C, Dilshat R, Seberg HE, Van Otterloo E, Bonde G, Helverson A, Franke CM, Steingrímsson E, Cornell RA. 2022. TFAP2 paralogs facilitate chromatin access for MITF at pigmentation and cell proliferation genes. *PLOS Genetics*. 18(5):e1010207. doi: 10.1371.
- Smith AE, Sigurbjörnsdóttir ES, Steingrímsson E, Sigurbjörnsdóttir S. 2022. Hedgehog signalling in bone and osteoarthritis: the role of Smoothened and cholesterol. *FEBS J*. doi: 10.1111. PMID: 35305060.
- Stephanie U. Greer, Margret H. Ogmundsdóttir, Jiamin Chen, Billy T. Lau, Richard Glenn C. Delacruz, Imelda T. Sandoval, Sigrun Kristjansdóttir, David A. Jones, Derrick S.

Haslem, Robin Romero, Gail Fulde, John M. Bell, Jon G. Jonasson, Eiríkur Steingrímsson, Hanlee P. Ji, Lincoln D. Nadauld. 2022. Germline variants of ATG7 in familial cholangiocarcinoma alter autophagy and p62. *Scientific Reports*. PMID: 35725745.

Louphrasitthiphol P, Loffreda A, Pogenberg V, Picaud S, Schepsky A, Friedrichsen H, Zeng Z, Lashgari A, Thomas B, Patton EE, Wilmanns M, Filippakopoulos P, Lambert JP, Steingrímsson E, Mazza D, Goding CR. 2023. Acetylation reprograms MITF target selectivity and residence time. *Nat Commun*. doi: 10.1038/s41467-023-41793-7. PMID: 37770430.

Vu HN, Valdimarsson MM, Sigurbjörnsdóttir S, Bergsteinsdóttir K, Debbache J, Bismuth K, Swing DA, Hallsson JH, Larue L, Arnheiter H, Copeland NG, Jenkins NA, Heidarsson PO, Steingrímsson E. 2023. Novel mechanisms of MITF regulation and melanoma predisposition identified in a mouse suppressor screen. *bioRxiv*. PMID: 37786677.