

Abbreviated CV for Manas Ray

Curriculum Vitae

Manas K. Ray, Ph.D.
Head, Gene Editing and Mouse Model
(GEMM) Core

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Reproduction and Developmental
Biology Laboratory (RDBL)
NIEHS- National Institute of Health
111 T.W. Alexander Drive
Research Triangle Park, NC 27707

Education

1991	Ph.D. in Biochemistry & Mol. Biology, Uni. of Nebraska, Lincoln, NE Ph.D. Thesis Title: Role of p67kDa protein in Eukaryotic Protein Synthesis Initiation
1986	MS in Biochemistry & Mol. Biology, Uni. of Calcutta, India
1983	BS in Chemistry, Scottish Church College, India

Professional Positions

2002 – Present	Head, GEMM Core, NIEHS-National Institute of Health, RTP, NC 27709
2000 – 2002	Assistant Professor, Eastern Virginia Medical School, VA 23510
1997 – 2000	Assistant Professor, Baylor College of Medicine, TX 77030
1992 – 1997	Research Associate, Baylor College of Medicine, TX 77030
1991 – 1992	Research Fellow, University of Nebraska-Lincoln (UNL), NE 68588-0304
1987 – 1991	Ph.D., University of Nebraska-Lincoln (UNL), NE 68588-0304

Served as Member of the Societies/Committees

- American Diabetes Association
- American Chemical Society
- Juvenile Diabetes Foundation
- Animal Care and Use Committee (ACUC), EVMS
- Animal Care and Use Committee (ACUC), NIEHS
- NIEHS Health and Safety Committee (current member)
- NIEHS COP III Committee
- NIEHS Science Day Judge

- NB Core Head Selection Committee
- International Society for Transgenic Technologies (ISTT; current member)
- Frontiers Cell and Developmental Biology, Review Editor since Oct 2020

Invited Speaker

- National Institute of Health, Bethesda, MD; Laboratory of Ocular Therapeutics, May 6, 1996: Regulation of Cell-Specific Pulmonary Gene Expression.
- Lexicon Genetics, Woodlands, TX; March 17, 2000: Regulation of Cell-Specific Pulmonary Gene Expression, *in vitro* and *in vivo* study.
- University of Miami Diabetes Research Institute, Miami, FL; April 07, 2000: Mouse models to study gene function.
- University of Tennessee at Memphis, TN; June 16, 2001: Transgenic Mouse Model(s) to Study Gene Function(s).
- CuraGen Corporation, Branford, CT; July 16, 2001: Somatostatin receptors in Diabetes.
- NIH -NIDDK, Bethesda, MD; August 21, 2001: *In vivo* analysis of gene function using transgenic and knock out techniques.

Participated in Recent Meetings and Summer Training Courses

- International Society of Transgenic Society (ISTT, TT2022) Meeting – September 2022; Helsinki, Finland.
- Keystone Symposia on Molecular and Cellular Biology: Precision Genome Engineering – Rescheduled (RQ5); April 27 – May 1, 2022.
- Frontiers in Reproduction (FiR) Summer Training Course in Woods Hole, MA, May 2022; Teaching Assistant to the course and performed hands on training on embryo manipulation, in both blastocyst and pro-nuclear injection.
- Keystone Symposia on Molecular and Cellular Biology: Precision Engineering of the Genome, Epigenome and Transcriptome (EK24); March 8-10, 2021.
- Core hosted speaker for RDBL seminar series; Speaker: Dr. Lauryl Nutter PhD, The Center for Phenogenomics at The Hospital for Sick Children in Toronto. Title: Lessons learned from high-throughput mouse line production using Cas9 – Essential genes and genetics; September 25, 2020.
- The 15th International Society of Transgenic Society (ISTT) Meeting in Kobe, Japan, April 2019.
- Frontiers in Reproduction (FiR) Summer Training Course in Woods Hole, MA, May 2018; Served as Teaching Assistant and performed hands on training on embryo manipulation both blastocyst and pro-nuclear injection.
- International Society of Transgenic Society (ISTT) Meeting, Salt Lake City, Utah, Oct 2017.
- Frontiers in Reproduction (FiR) Summer Training Course in Woods Hole, MA, May 2017; Served as Teaching Assistant for the course and taught all the microinjection and cryo techniques to the participants.

- Frontiers in Reproduction (FiR) Summer Training Course in Woods Hole, MA, May 2016; Core members served as Teaching Assistant for the course and helped preparing both material and equipment, which includes cryo-recovery of embryos and culture to blastocyst, and cryo-recovery of one-cell embryos; preparation for one-cell microinjection into both cytosol and pronuclear (CRISPR-Cas9) and blastocyst injection of ES-cells.
- International Society of Transgenic Society (ISTT) meeting in Prague, CHK, Feb 2016; Enriching for High Quality ES Cells for Microinjection by Flow Cytometry. Scott G, Gruzdev A, Sifre M, and Ray M.

Students Trained in the GEMM Core through NIEHS Summer Internship Program (SIP) and IRTA Postbaccalaureate Fellowship

- Shelby L Lacy (Joined MPH program at the U of Florida in Gainesville in Fall of 2020)
- Benjamin Charles Cook (*UNC, rising Senior, 2019*)
- Asha Anand (*NCSU; rising Junior, 2017*), Med Student at UNC
- Asha Anand (*NCSU; rising Sophomore, 2016*)
- Thomas Briggs Hagler (*UNC Asheville; Postbac Fellowship, 2016*), current Lab Member and completed Master's Program at the NCSU while working in the core
- Neelesh Dewan (*UNC Chapel Hill; Postbac Fellowship, 2015*), Med Student at the U of Miami
- Meredith Parker (*UNC Chapel Hill; 2013*)
- Kathryn Goulah (*Elon University; 2012*), Finished Medical School at East Carolina University
- Yash Patel (*UNC- Chapel Hill; 2011*); Finished Dental School at UNC
- Matt Milloway (*NCSU; 2010*); Finished DVM at NCSU School of Veterinary Medicine
- Brittany Hopkins (*Louisiana State University; 2009*), Finished MD at LSUHSC Shreveport
- Gloria MacDonald (*NCSU; 2008*), Finished DVM at NCSU School of Veterinary Medicine

Awards, Grants and Patent

- National Scholarship Award, Government of India, Ministry of Education, 1977
- SSAT Annual Scientific Meeting, Poster of Distinction in New Orleans, LA, May 17-21, 1998
- NIH - 2RO1 DK 46441-07 (P.I. F. Charles Brunicardi, M.D.) 05/98 – 03/02, 50% Effort (Co-Principal Investigator)
- CNRC - (P.I. - Austin Cooney, Ph.D.); 10/99 – 03/04; 15% Effort, Role: Co-Principal Investigator
- NIH Patent Number: E-328-2008/0; "Transgenic Mice with Conditionally-Enhanced Bone Morphogen Protein (BMP) Signaling: A Model for Human Bone Diseases" with Novartis Pharmaceuticals

Publications

1. Yukitomo A, Gruzdev A, Scott G, Ray MK, Donoghue LJ, Neufeld TI, Lierz SL, Stefkovich ML, Mathura E, Jefferson T, Foley JF, Mahler BW, Asghari A, Le C, McConnell BK, Stephen R, Berridge BR, Hamilton KJ, Hewitt SC, Umetani M, Korach KS. A novel mouse model to analyze non-genomic ER α physiological actions. *Journal of the Endocrine Society*. 2022;6(9):11. Published: 26 July 2022. <https://doi.org/10.1210/jeendo/bvac109>
2. Masako Toda Nakamura, Honghao Zhang, Dayong Guo, Hiroki Ueharu, Haichun Pan, Greg Scott, Marie Harris, **Manas Ray**, Jiang Q. Feng, Stephen E. Harris, Lynda F. Bonewald, Yuji Mishina. Podoplanin is dispensable for mineralized tissue formation and maintenance in the Swiss outbred mouse background. *genesis*. 2021 September 6; 59:e23450. PMID: 34487426; PMCID: PMC8526399. Full-text: <https://doi.org/10.1002/dvg.23450>
3. Shindo S, Chen SH, Gotoh S, Yokobori K, Hu H, **Ray M**, Moore R, Nagata K, Martinez J, Hong JS, Negishi M. Estrogen receptor alpha phosphorylated at Ser216 confers inflammatory function to mouse microglia. *Cell Commun Signal*. 2020;18(1):117. ePub 2020/07/31. PubMed PMID: 32727504; PMCID: PMC7390202.
4. Romeo C, Chen SH, Goulding E, Van Gorder L, Schwartz M, Walker M, Scott G, Scappini E, **Ray M**, Martin NP. AAV diffuses across zona pellucida for effortless gene delivery to fertilized eggs. *Biochem Biophys Res Commun*. 2020;526(1):85-90. ePub 2020/03/22. PubMed PMID: 32197836; PMCID: PMC7188573.
5. Sueyoshi T, Sakuma T, Shindo S, Fashe M, Kanayama T, **Ray M**, Moore R, Negishi M. A phosphorylation-deficient mutant of retinoid X receptor α at Thr 167 alters fasting response and energy metabolism in mice. *Laboratory Investigation*. 2019;99(10):1470-83. PubMed PMID: 31152145; PMCID: PMC6759383
6. Gruzdev A, Scott GJ, Hagler TB, **Ray MK**. CRISPR/Cas9-Assisted Genome Editing in Murine Embryonic Stem Cells. *Methods in Molecular Biology*. 2019/02/25 ed2019. p. 1-21.
7. Scott GJ, Gruzdev A, Hagler TB, **Ray MK**. Trans-inner Cell Mass Injection of Embryonic Stem Cells Leads to Higher Chimerism Rates. *J Vis Exp*. 2018(135):7. PubMed PMID: 29912196; PMCID: PMC6085124
8. Nicol B, Grimm SA, Gruzdev A, Scott GJ, **Ray MK**, Yao HH. Genome-wide identification of FOXL2 binding and characterization of FOXL2 feminizing action in the fetal gonads. *Human Molecular Genetics*. 2018;27(24):4273-87. ePub 2018/09/14. PubMed PMID: 30212841; PMCID: PMC6276834.
9. Chen G, Ishan M, Yang J, Kishigami S, Fukuda T, Scott G, **Ray MK**, Sun C, Chen SY, Komatsu Y, Mishina Y, Liu HX. Specific and spatial labeling of P0-Cre versus Wnt1-Cre in cranial neural crest in early mouse embryos. *Genesis* (New York, NY: 2000). 2017;55(6). Epub 2017/04/04. doi: 10.1002/dvg.23034. PubMed PMID: 28371069; PMCID: PMC5473950.
10. Zhang H, Kamiya N, Tsuji T, Takeda H, Scott G, Rajderkar S, **Ray MK**, Mochida Y, Allen B, Lefebvre V, Hung IH, Ornitz DM, Kunieda T, Mishina Y. Elevated Fibroblast Growth Factor Signaling Is Critical for the Pathogenesis of the Dwarfism in Evc2/Limbin Mutant Mice. *PLoS Genetics*. 2016;12(12): e1006510. Epub 2016/12/28. doi: 10.1371/journal.pgen.1006510. PubMed PMID: 28027321; PMCID: PMC5189957.
11. Badri MK, Zhang H, Ohyama Y, Venkitapathi S, Alamoudi A, Kamiya N, Takeda H, **Ray M**, Scott G, Tsuji T, Kunieda T, Mishina Y, Mochida Y. Expression of Evc2 in craniofacial tissues and craniofacial bone defects in Evc2 knockout mouse. *Archives of Oral Biology*. 2016; 68:142-52. Epub 2016/05/11. doi: 10.1016/j.archoralbio.2016.05.002. PubMed PMID: 27164562; PMCID: PMC4903910.
12. Zhang Y, McNerny EG, Terajima M, Raghavan M, Romanowicz G, Zhang Z, Zhang H, Kamiya N, Tantillo M, Zhu P, Scott GJ, **Ray MK**, Lynch M, Ma PX, Morris MD, Yamauchi M, Kohn DH, Mishina Y. Loss of BMP signaling through BMP1A in osteoblasts leads to greater collagen cross-link maturation and material-level mechanical properties in mouse femoral trabecular

- compartments. *Bone*. 2016; 88:74-84. Epub 2016/04/27. doi: 10.1016/j.bone.2016.04.022. PubMed PMID: 27113526; PMCID: PMC4899267.
13. Badri MK, Zhang H, Ohyama Y, Venkitapathi S, Kamiya N, Takeda H, **Ray M**, Scott G, Tsuji T, Kunieda T, Mishina Y, Mochida Y. *Ellis Van Creveld2 is Required for Postnatal Craniofacial Bone Development*. *The Anatomical Record (Hoboken, NJ: 2007)*. 2016;299(8):1110-20. Epub 2016/04/20. doi: 10.1002/ar.23353. PubMed PMID: 27090777; PMCID: PMC4940231.
 14. Zhang H, Takeda H, Tsuji T, Kamiya N, Rajderkar S, Louie K, Collier C, Scott G, **Ray M**, Mochida Y, Kaartinen V, Kunieda T, Mishina Y. *Generation of Evc2/Limbin global and conditional KO mice and its roles during mineralized tissue formation*. *Genesis (New York, NY: 2000)*. 2015. Epub 2015/07/30. doi: 10.1002/dvg.22879. PubMed PMID: 26219237; PMCID: PMC4731321.
 15. Ohno M, Kanayama T, Moore R, **Ray M**, Negishi M. *The roles of co-chaperone CCRP/DNAJC7 in Cyp2b10 gene activation and steatosis development in mouse livers*. *PloS One*. 2014;9(12):e115663. Epub 2014/12/30. doi: 10.1371/journal.pone.0115663. PubMed PMID: 25542016; PMCID: PMC4277317.
 16. Howden R, Cooley I, Van Dodewaard C, Arthur S, Cividanes S, Leamy L, McCann Hartzell K, Gladwell W, Martin J, Scott G, **Ray M**, Mishina Y. *Cardiac responses to 24 hrs hyperoxia in Bmp2 and Bmp4 heterozygous mice*. *Inhalation Toxicology*. 2013;25(9):509-16. Epub 2013/07/24. doi: 10.3109/08958378.2013.808287. PubMed PMID: 23876042.
 17. Yang W, Guo D, Harris MA, Cui Y, Gluhak-Heinrich J, Wu J, Chen XD, Skinner C, Nyman JS, Edwards JR, Mundy GR, Lichtler A, Kream BE, Rowe DW, Kalajzic I, David V, Quarles DL, Villareal D, Scott G, **Ray M**, Liu S, Martin JF, Mishina Y, Harris SE. *Bmp2 in osteoblasts of periosteum and trabecular bone links bone formation to vascularization and mesenchymal stem cells*. *Journal of Cell Science*. 2013;126(Pt 18):4085-98. Epub 2013/07/12. doi: 10.1242/jcs.118596. PubMed PMID: 23843612; PMCID: PMC3772385.
 18. Yumoto K, Thomas PS, Lane J, Matsuzaki K, Inagaki M, Ninomiya-Tsuji J, Scott GJ, **Ray MK**, Ishii M, Maxson R, Mishina Y, Kaartinen V. *TGF-beta-activated kinase 1 (Tak1) mediates agonist-induced Smad activation and linker region phosphorylation in embryonic craniofacial neural crest-derived cells*. *The Journal of Biological Chemistry*. 2013;288(19):13467-80. Epub 2013/04/03. doi: 10.1074/jbc.M112.431775. PubMed PMID: 23546880; PMCID: PMC3650384.
 19. Komatsu Y, Yu PB, Kamiya N, Pan H, Fukuda T, Scott GJ, **Ray MK**, Yamamura K, Mishina Y. *Augmentation of Smad-dependent BMP signaling in neural crest cells causes craniosynostosis in mice*. *Journal of bone and mineral research: the official journal of the American Society for Bone and Mineral Research*. 2013;28(6):1422-33. Epub 2013/01/03. doi: 10.1002/jbmr.1857. PubMed PMID: 23281127; PMCID: PMC3638058.
 20. Arao Y, Hamilton KJ, **Ray MK**, Scott G, Mishina Y, Korach KS. *Estrogen receptor alpha AF-2 mutation results in antagonist reversal and reveals tissue selective function of estrogen receptor modulators*. *Proceedings of the National Academy of Sciences of the United States of America*. 2011;108(36):14986-91. Epub 2011/08/30. doi: 10.1073/pnas.1109180108. PubMed PMID: 21873215; PMCID: PMC3169108.
 21. Stumpo DJ, Broxmeyer HE, Ward T, Cooper S, Hangoc G, Chung YJ, Shelley WC, Richfield EK, **Ray MK**, Yoder MC, Aplan PD, Blackshear PJ. *Targeted disruption of Zfp36l2, encoding a CCCH tandem zinc finger RNA-binding protein, results in defective hematopoiesis*. *Blood*. 2009;114(12):2401-10. Epub 2009/07/28. doi: 10.1182/blood-2009-04-214619. PubMed PMID: 19633199; PMCID: PMC2746470.
 22. Scott GJ, **Ray MK**, Ward T, McCann K, Peddada S, Jiang FX, Mishina Y. *Abnormal glucose metabolism in heterozygous mutant mice for a type I receptor required for BMP signaling*. *Genesis (New York, NY: 2000)*. 2009;47(6):385-91. Epub 2009/04/10. doi: 10.1002/dvg.20513. PubMed PMID: 19358156; PMCID: PMC2758535.
 23. Inagaki M, Omori E, Kim JY, Komatsu Y, Scott G, **Ray MK**, Yamada G, Matsumoto K, Mishina Y, Ninomiya-Tsuji J. *TAK1-binding protein 1, TAB1, mediates osmotic stress-induced TAK1 activation but is dispensable for TAK1-mediated cytokine signaling*. *The Journal of Biological*

- Chemistry. 2008;283(48):33080-6. Epub 2008/10/03. doi: 10.1074/jbc.M807574200. PubMed PMID: 18829460; PMCID: PMC2586273.
24. Singh AP, Castranio T, Scott G, Guo D, Harris MA, **Ray M**, Harris SE, Mishina Y. Influences of reduced expression of maternal bone morphogenetic protein 2 on mouse embryonic development. *Sexual Development: genetics, molecular biology, evolution, endocrinology, embryology, and pathology of sex determination and differentiation*. 2008;2(3):134-41. Epub 2008/09/05. doi: 10.1159/000143431. PubMed PMID: 18769073; PMCID: PMC2632600.
 25. Inagaki M, Komatsu Y, Scott G, Yamada G, **Ray M**, Ninomiya-Tsuji J, Mishina Y. Generation of a conditional mutant allele for *Tab1* in mouse. *Genesis (New York, NY: 2000)*. 2008;46(8):431-9. Epub 2008/08/12. doi: 10.1002/dvg.20418. PubMed PMID: 18693278; PMCID: PMC2637350.
 26. Wang Y, Yabuuchi A, McKinney-Freeman S, Ducharme DM, **Ray MK**, Chawengsaksophak K, Archer TK, Daley GQ. *Cdx* gene deficiency compromises embryonic hematopoiesis in the mouse. *Proceedings of the National Academy of Sciences of the United States of America*. 2008;105(22):7756-61. Epub 2008/05/31. doi: 10.1073/pnas.0708951105. PubMed PMID: 18511567; PMCID: PMC2409377.
 27. O'Bryan MK, Takada S, Kennedy CL, Scott G, Harada S, **Ray MK**, Dai Q, Wilhelm D, de Kretser DM, Eddy EM, Koopman P, Mishina Y. *Sox8* is a critical regulator of adult Sertoli cell function and male fertility. *Developmental Biology*. 2008;316(2):359-70. Epub 2008/03/18. doi: 10.1016/j.ydbio.2008.01.042. PubMed PMID: 18342849; PMCID: PMC2375044.
 28. Feng JQ, Scott G, Guo D, Jiang B, Harris M, Ward T, **Ray M**, Bonewald LF, Harris SE, Mishina Y. Generation of a conditional null allele for *Dmp1* in mouse. *Genesis (New York, NY: 2000)*. 2008;46(2):87-91. Epub 2008/02/08. doi: 10.1002/dvg.20370. PubMed PMID: 18257058; PMCID: PMC3568775.
 29. Okada Y, Scott G, **Ray MK**, Mishina Y, Zhang Y. Histone demethylase *JHDM2A* is critical for *Tnp1* and *Prm1* transcription and spermatogenesis. *Nature*. 2007;450(7166):119-23. Epub 2007/10/19. doi: 10.1038/nature06236. PubMed PMID: 17943087.
 30. Fukuda T, Scott G, Komatsu Y, Araya R, Kawano M, **Ray MK**, Yamada M, Mishina Y. Generation of a mouse with conditionally activated signaling through the BMP receptor, *ALK2*. *Genesis (New York, NY: 2000)*. 2006;44(4):159-67. Epub 2006/04/11. doi: 10.1002/dvg.20201. PubMed PMID: 16604518.
 31. **Ray MK**, Fagan SP, Brunnicardi FC. The Cre-loxP system: a versatile tool for targeting genes in a cell- and stage-specific manner. *Cell Transplantation*. 2000;9(6):805-15. Epub 2001/02/24. PubMed PMID: 11202567.
 32. Kleinman RM, Fagan SP, **Ray MK**, Adrian TE, Wong H, Imagawa D, Walsh JH, Brunnicardi FC. Differential inhibition of insulin and islet amyloid polypeptide secretion by intraislet somatostatin in the isolated perfused human pancreas. *Pancreas*. 1999;19(4):346-52. Epub 1999/11/05. PubMed PMID: 10547194.
 33. **Ray MK**, Fagan SP, Moldovan S, DeMayo FJ, Brunnicardi FC. Development of a transgenic mouse model using rat insulin promoter to drive the expression of CRE recombinase in a tissue-specific manner. *International Journal of Pancreatology: official journal of the International Association of Pancreatology*. 1999;25(3):157-63. Epub 1999/08/24. PubMed PMID: 10453417.
 34. **Ray MK**, Fagan SP, Moldovan S, DeMayo FJ, Brunnicardi FC. Beta cell-specific ablation of target gene using Cre-loxP system in transgenic mice. *The Journal of Surgical Research*. 1999;84(2):199-203. Epub 1999/06/08. doi: 10.1006/jsre.1999.5642. PubMed PMID: 10357920.
 35. **Ray MK**, Fagan SP, Moldovan S, DeMayo FJ, Brunnicardi FC. A mouse model for beta cell-specific ablation of target gene(s) using the Cre-loxP system. *Biochemical and Biophysical Research Communications*. 1998;253(1):65-9. Epub 1999/01/06. doi: 10.1006/bbrc.1998.9714. PubMed PMID: 9875221.
 36. Fagan SP, Azizzadeh A, Moldovan S, **Ray MK**, Adrian TE, Ding X, Coy DH, Brunnicardi FC. Insulin secretion is inhibited by subtype five somatostatin receptor in the mouse. *Surgery*. 1998;124(2):254-8; discussion 8-9. Epub 1998/08/26. PubMed PMID: 9706146.

37. Magdaleno SM, Wang G, Jackson KJ, **Ray MK**, Welty S, Costa RH, DeMayo FJ. Interferon-gamma regulation of Clara cell gene expression: in vivo and in vitro. *The American Journal of Physiology*. 1997;272(6 Pt 1): L1142-51. Epub 1997/06/01. doi: 10.1152/ajplung.1997.272.6.L1142. PubMed PMID: 9227516.
38. Magdaleno SM, Wang G, Mireles VL, **Ray MK**, Finegold MJ, DeMayo FJ. Cyclin-dependent kinase inhibitor expression in pulmonary Clara cells transformed with SV40 large T antigen in transgenic mice. *Cell Growth & Differentiation: The Molecular Biology Journal of the American Association for Cancer Research*. 1997;8(2):145-55. Epub 1997/02/01. PubMed PMID: 9040936.
39. **Ray MK**, Wang G, Barrish J, Finegold MJ, DeMayo FJ. Immunohistochemical localization of mouse Clara cell 10-KD protein using antibodies raised against the recombinant protein. *The Journal of Histochemistry and Cytochemistry: Official Journal of the Histochemistry Society*. 1996;44(8):919-27. Epub 1996/08/01. PubMed PMID: 8756763.
40. **Ray MK**, Chen CY, Schwartz RJ, DeMayo FJ. Transcriptional regulation of a mouse Clara cell-specific protein (mCC10) gene by the NKx transcription factor family members thyroid transcription factor 1 and cardiac muscle-specific homeobox protein (CSX). *Molecular and Cellular Biology*. 1996;16(5):2056-64. Epub 1996/05/01. PubMed PMID: 8628271; PMCID: PMC231192.
41. **Ray MK**, Magdaleno SW, Finegold MJ, DeMayo FJ. cis-acting elements involved in the regulation of mouse Clara cell-specific 10-kDa protein gene. In vitro and in vivo analysis. *The Journal of Biological Chemistry*. 1995;270(6):2689-94. Epub 1995/02/10. PubMed PMID: 7852338.
42. **Ray MK**, Magdaleno S, O'Malley BW, DeMayo FJ. Cloning and characterization of the mouse Clara cell specific 10 kDa protein gene: comparison of the 5'-flanking region with the human rat and rabbit gene. *Biochemical and Biophysical Research Communications*. 1993; 197(1): 163-71. Epub 1993/11/30. PubMed PMID: 7916613.
43. **Ray MK**, Chakraborty A, Datta B, Chattopadhyay A, Saha D, Bose A, Kinzy TG, Wu S, Hileman RE, Merrick WC, et al. Characteristics of the eukaryotic initiation factor 2 associated 67-kDa polypeptide. *Biochemistry*. 1993;32(19):5151-9. Epub 1993/05/18. PubMed PMID: 8098621.
44. **Ray MK**, Datta B, Chakraborty A, Chattopadhyay A, Meza-Keuthen S, Gupta NK. The eukaryotic initiation factor 2-associated 67-kDa polypeptide (p67) plays a critical role in regulation of protein synthesis initiation in animal cells. *Proceedings of the National Academy of Sciences of the United States of America*. 1992;89(2):539-43. Epub 1992/01/15. PubMed PMID: 1346232; PMCID: PMC48274.
45. Datta B, **Ray MK**, Chakrabarti D, Gupta NK. Roles of eIF-2 and eIF-2-associated proteins in regulation of protein synthesis during growth of animal cells in culture. *Indian Journal of Biochemistry & Biophysics*. 1988;25(6):478-82. Epub 1988/12/01. PubMed PMID: 3255662.

BOOK CHAPTERS:

1. Gupta NK, Datta B, **Ray MK**, Roy AL. Protein Synthesis Initiation in Animal Cells. In: Ilan J, editor. *Translational Regulation of Gene Expression 2*. Boston, MA: Springer US; 1993. p. 405-31.
2. Wu S, **Ray MK**, Gupta S, N.K. G, editors. *Peptide Chain Initiation Factor, Characteristics, Gene Cloning and Possible Therapeutic Uses. Downstream Processing in Biotechnology: Proceedings of an International Seminar*; 1992; New Delhi: Tata-McGraw Hill Company.
3. Gupta NK, Datta B, Roy AL, **Ray MK**, editors. *Peptide Chain Initiation in Animal Cells: Mechanism and Regulation 1990*; Berlin, Heidelberg: Springer Berlin Heidelberg.

1. Sosnowski DK, KL Jamieson, A Gruzdev, Y Li, R Valencia, A Yousef, Z Kassiri, DC Zeldin and JM Seubert. Cardiomyocyte-specific disruption of soluble epoxide hydrolase limits inflammation to preserve cardiac function [Journal Article]. *American Journal of Physiology Heart and Circulatory Physiology* (2022) [In Press]. PMID: 35985007. Full-Text at: <https://doi.org/10.1152/ajpheart.00217.2022>
2. Yukitomo A, Gruzdev A, Scott G, Ray MK, Donoghue LJ, Neufeld TI, Lierz SL, Stefkovich ML, Mathura E, Jefferson T, Foley JF, Mahler BW, Asghari A, Le C, McConnell BK, Stephen R, Berridge BR, Hamilton KJ, Hewitt SC, Umetani M, Korach KS. A novel mouse model to analyze non-genomic ER α physiological actions. *Journal of the Endocrine Society*. 2022;6(9):11. Published: 26 July 2022. <https://doi.org/10.1210/ijendso/bvac109>
3. Moldovan GE, Song Y, Kim TH, Su RW, Jeong JW, Gruzdev A, Spencer TE, Fazleabas AT. Notch effector recombination signal binding protein for immunoglobulin kappa J signaling is required for the initiation of endometrial stromal cell decidualization. *Biol Reprod*. 2022 Jul 14. PMID: 35835555. Full text: <https://doi.org/10.1093/biolre/iaoc140>
4. Yokobori K, A Gruzdev and M Negishi. Mice blocking Ser347 phosphorylation of pregnane x receptor develop hepatic fasting-induced steatosis and hypertriglyceridemia [Journal Article] *Biochemical and Biophysical Research Communications* (2022) v. 615: pp. 75-80. PMID: 35609418. Full text: <https://doi.org/10.1016/j.bbrc.2022.05.055>
5. Manoj K. Madhavan, Francesco J. DeMayo, John P. Lydon, Niraj R. Joshi, Asgerally T. Fazleabas and Ripa Arora. Aberrant uterine folding in mice disrupts implantation chamber formation and embryo-uterine axes alignment. *Development* (2022): PMID: 35575097. Full text: <https://doi.org/10.1242/dev.200300>
6. Dickson MJ, Y Oh, A Gruzdev, R Li, N Balaguer, AM Kelleher, TE Spencer, SP Wu and FJ DeMayo. Inserting Cre recombinase into the Prolactin 8a2 gene for decidua-specific recombination in mice. *Genesis* (2022): e23473. PMID:35475540. Full text: <http://doi.org/10.1002/dvg.23473>
7. Lozoya OA, Xu F, Grenet D, Wang T, Stevanovic KD, Cushman JD, Hagler TB, Gruzdev A, Jensen P, Hernandez B, Riadi G, Moy SS, Santos JH, Woychik RP. Correction: A brain-specific PGC1a fusion transcript affects gene expression and behavioral outcomes in mice. *Life Sci Alliance*. 2022;5(2). PMID: 34819359; PMCID: PMC8616557. Full text: <https://doi.org/10.26508/lsa.202101295>
8. Masako Toda Nakamura, Honghao Zhang, Dayong Guo, Hiroki Ueharu, Haichun Pan, Greg Scott, Marie Harris, Manas Ray, Jiang Q. Feng, Stephen E. Harris, Lynda F. Bonewald, Yuji Mishina. Podoplanin is dispensable for mineralized tissue formation and maintenance in the Swiss outbred mouse background. *genesis*. 2021 September 6; 59:e23450. PMID: 34487426; PMCID: PMC8526399. Full text: <https://doi.org/10.1002/dvg.23450>
9. Li H, Bradbury JA, Edin ML, Graves JP, Gruzdev A, Cheng J, Hoopes SL, DeGraff LM, Fessler MB, Garantziotis S, Schurmn H and Zeldin DC. sEH promotes macrophage phagocytosis and lung clearance of *Streptococcus pneumoniae*. *J Clin Invest*. 2021 Nov 15; 131(22):e129679. PMID: 34591792; PMCID: PMC8592545. Full text: [10.1172/JCI129679](https://doi.org/10.1172/JCI129679)
10. Lozoya OA, Xu F, Grenet D, Wang T, Stevanovic KD, Cushman JD, Hagler TB, Gruzdev A, Jensen P, Hernandez B, Riadi G, Moy SS, Santos JH, Woychik RP. A brain-specific *pgc1a* fusion transcript affects gene expression and behavioural outcomes in mice. *Life Sci Alliance*. 2021;4(12). PMID: 34649938; PMCID: PMC8548212. Full text: <https://doi.org/10.26508/lsa.202101122>
11. Peavey MC, Wu SP, Li R, Liu J, Emery OM, Wang T, Zhou L, Wetendorf M, Yallampalli C, Gibbons WE, Lydon JP, DeMayo FJ. Progesterone receptor isoform B regulates the Oxr-Plcl2-Trpc3 pathway to suppress uterine contractility. *Proceedings of the National Academy of Sciences of the United States of America*. 2021;118(11). ePub 2021/03/13. PMID: 33707208; PMCID: PMC7980420. Full text: <https://doi.org/10.1073/pnas.2011643118>

12. Wetendorf M, Li R, Wu SP, Liu J, Creighton CJ, Wang T, Janardhan KS, Willson CJ, Lanz RB, Murphy BD, Lydon JP, DeMayo FJ. Constitutive expression of progesterone receptor isoforms promotes the development of hormone-dependent ovarian neoplasms. *Science signaling*. 2020;13(652). ePub 2020/10/08. PubMed PMID: 33023986. Full text: <https://doi.org/10.1126/scisignal.aaz9646>
13. Lozoya OA, Xu F, Grenet D, Wang T, Stevanovic KD, Cushman JD, Jensen P, Hernandez B, Riadi G, Moy SS, Santos JH, Woychik RP. Mutations on a novel brain specific isoform of PGC1 α leads to extensive upregulation of neurotransmitter-related genes and sexually dimorphic motor deficits in mice. Full text: <http://doi.org/10.1101/2020.09.18.300418>
14. Chi RA, Wang T, Huang CL, Wu S, Young S, Lydon J, DeMayo F. WNK1 regulates uterine homeostasis and its ability to support pregnancy. *JCI insight*. 2020 Nov 19; 5(22): e141832 doi: PMID: 33048843; PMCID: PMC7710275. Full text: [10.1172/jci.insight.141832](https://doi.org/10.1172/jci.insight.141832).
15. Schurman SH, TP O'Hanlon, JA McGrath, A Gruzdev, A Bektas, H Xu, S Garantziotis, DC Zeldin and FW Miller. Transethnic associations among immune-mediated diseases and single-nucleotide polymorphisms of the aryl hydrocarbon response gene ARNT and the PTPN22 immune regulatory gene. *J Autoimmun* (2020); 107: e102363. PMID: 31759816; PMCID: PMC7237321. Full text: <https://doi.org/10.1016/j.jaut.2019.102363>.
16. Li H, Bradbury JA, Xu XJ, Edin ML, Li J, Katen K, Gruzdev A, Graves JP, Duval CN and Zeldin DC. Single-Cell RNA Sequencing Identifies a Novel Population of CD4⁺CD8⁺ T Cells that are Regulated by COX-2 During Allergic Lung Inflammation. *J Immunol* May 1, 2020, 204 (1 Supplement) 65.17. Full text: https://www.jimmunol.org/content/204/1_Supplement/65.17
17. Sil P, J Suwanpradid, G Muse, A Gruzdev, L Liu, DL Corcoran, CJ Willson, K Janardhan, S Grimm, P Myers, LM Degraff, AS MacLeod and J Martinez. Noncanonical autophagy in dermal dendritic cells mediates immunosuppressive effects of UV exposure [Journal Article] *Journal of Allergy and Clinical Immunology* (2020) v. 145 (5): pp. 1389-1405. PMID: 31837371; PMCID: PMC7214202. Full text: <https://doi.org/10.1016/j.jaci.2019.11.041>
18. Tillage RP, Sciolino NR, Plummer NW, Lustberg D, Liles LC, Hsiang M, Powell JM, Smith KG, Jensen P, Weinshenker D. Elimination of galanin synthesis in noradrenergic neurons reduces galanin in select brain areas and promotes active coping behaviors. *Brain Struct Funct*. 2020;225(2):785-803. ePub 2020/02/18. PubMed PMID: 32065256; PMCID: PMC7238760. Full text: <https://doi.org/10.1007/s00429-020-02035-4>
19. Li Y, KJ Hamilton, L Perera, T Wang, A Gruzdev, TB Jefferson, AX Zhang, E Mathura, KE Gerrish, L Wharey, NP Martin, JL Li and KS Korach. (2020). ESR1 Mutations Associated with Estrogen Insensitivity Syndrome Change Conformation of Ligand-Receptor Complex and Altered Transcriptome Profile. *Endocrinology* 161. PMID: 32242619; PMCID: PMC794760. Full-Text: <https://doi.org/10.1210/endo/bqaa050>
20. Scoville DW, HS Kang and AM Jetten. Transcription factor GLIS3: Critical roles in thyroid hormone biosynthesis, hypothyroidism, pancreatic beta cells and diabetes. *Pharmacology & Therapeutics* 215 (2020) 107632. PMID: 32693112. PMCID: PMC7606550. Full text: DOI: [10.1016/j.pharmthera.2020.107632](https://doi.org/10.1016/j.pharmthera.2020.107632)
21. Juvonen RO, Pentikainen O, Huuskonen J, Timonen J, Karkkainen O, Heikkinen A, Fashe M, Raunio H. In vitro sulfonation of 7-hydroxycoumarin derivatives in liver cytosol of human and six animal species. *Xenobiotica*. 2020:1-9. ePub 2020/01/07. PubMed PMID: 31903849; PMCID: PMC7646200. Full text: <https://doi.org/10.1080/00498254.2020.1711544>
22. Scoville DW, A Gruzdev and AM Jetten. Identification of a novel lncRNA (G3R1) regulated by GLIS3 in pancreatic beta-cells [Journal Article] *Journal of Molecular Endocrinology* (2020) v. 65 (3): pp. 59-67; PMID:32668405; PMCID: PMC7461731. Full text: <https://doi.org/10.1530/jme-20-0082>
23. Shindo S, Chen SH, Gotoh S, Yokobori K, Hu H, Ray M, Moore R, Nagata K, Martinez J, Hong JS, Negishi M. Estrogen receptor alpha phosphorylated at Ser216 confers inflammatory function

- to mouse microglia. *Cell Commun Signal*. 2020;18(1):117. ePub 2020/07/31. PubMed PMID: 32727504; PMCID: PMC7390202. Full-text: <https://doi.org/10.1186/s12964-020-00578-x>
24. Hu H, K Yokobori and M Negishi. PXR Phosphorylated at Ser350 transduces a glucose signal to repress the estrogen sulfotransferase gene in human liver cells and fasting signal in mouse livers. *Biochem Pharmacol* 180 (2020) 114197. PMID: 32798464. Full text: DOI: [10.1016/j.bcp.2020.114197](https://doi.org/10.1016/j.bcp.2020.114197)
 25. Romeo C, SH Chen, E Goulding, L Van Gorder, M Schwartz, M Walker, G Scott, E Scappini, M Ray and NP Martin. (2020). AAV diffuses across zona pellucida for effortless gene delivery to fertilized eggs. *Biochem Biophys Res Commun* 526 (1): 85-90. PMID: 32197836. PMCID: PMC7188573. Full text: DOI: [10.1016/j.bbrc.2020.03.026](https://doi.org/10.1016/j.bbrc.2020.03.026)
 26. Garcia V, Pascale JV, Agostinucci K, Gilani A, Zhang FF, Gruzdev A, Zeldin D, Schwartzman ML. Vascular dysfunction and remodeling associated with 20-HETE-dependent hypertension is prevented in 20-HETE receptor (GPR75) null mice. *FASEB J*. 2020;34:2. Full text: <https://doi.org/10.1096/fasebj.2020.34.s1.03323>
 27. Li H, Nichols C, Gruzdev A, House JS, Ward J, Li J, Degraff L, Zeldin DC, London S. ADAM19 and Pulmonary Function in the Mouse: Follow-Up of Human GWAS. *Am J Respir Crit Care Med*. 2020;201:2. Full text: <https://doi.org/10.1164/ajrccm-conference.2020.201.1.MeetingAbstracts.A2386>
 28. D'Addario C, Kitagawa A, Zhang F, Zeldin D, Gruzdev A, Garcia V, Schwartzman M, Gupte S. G Protein Coupled Receptor 75 and Its Role in Pulmonary Hypertension. *FASEB J*. 2020;34:2. PubMed PMID: WOS:000546107904214; PMCID: n/a. Fulltext: <https://doi.org/10.1096/fasebj.2020.34.s1.02325>
 29. Phillips BT, Williams JG, Atchley DT, Xu X, Li JL, Adams AL, Johnson KL, Hall TMT. Mass spectrometric identification of candidate RNA-binding proteins associated with Transition Nuclear Protein mRNA in the mouse testis. *Scientific Reports*. 2019;9. PubMed PMID: 31541158; PMCID: PMC6754440. Full text: <https://doi.org/10.1038/s41598-019-50052-z>
 30. Sawako Shindo; Shih-Heng Chen; Saki Gotoh; Kosuke Yokobori; Hao Hu; Manas Ray; Rick Moore; Kiyoshi Nagata; Jennifer Martinez; Jau-Shyong Hong; Masahiko Negish. A phosphorylation-deficient mutant of retinoid X receptor α at Thr 167 alters fasting response and energy metabolism in mice. *Cell Communication and Signaling. Laboratory Investigation*. 2019 Oct; 99(10); 1470-1483; PMID:31152145; PMCID: PMC6759383. Full text: [10.1038/s41374-019-0266-1](https://doi.org/10.1038/s41374-019-0266-1)
 31. Sil P, Suwanpradid J, Muse G, Gruzdev A, Liu L, Corcoran DL, Willson CJ, Janardhan K, Grimm S, Myers P, Degraff LM, MacLeod AS, Martinez J. Non-canonical autophagy in dermal dendritic cells mediates immunosuppressive effects of UV exposure (2019). *J Allergy Clin Immunol*. PMID:3183737; DOI: [10.1016/j.jaci.2019.11.041](https://doi.org/10.1016/j.jaci.2019.11.041)
 32. Joan P. Graves, J. Alyce Bradbury, Artiom Gruzdev, Hong Li, Caroline Duval, Fred B. Lih, Matthew L. Edin, and Darryl C. Zeldin. Expression of Cyp2c/Cyp2j subfamily members and oxylipin levels during LPS-induced inflammation and resolution in mice. *FASEB J*. 2019 Nov 5. PMID: 31690125. <https://doi.org/10.1096/fj.201901872R>
 33. Gruzdev A, Scott GJ, Hagler TB, Ray MK (2019). CRISPR/Cas9-Assisted Genome Editing in Murine Embryonic Stem Cells. *Methods Mol Biol* 1960, 1-21. PMID: 30798517. Full text: https://doi.org/10.1007/978-1-4939-9167-9_1
 34. Aloor JJ, Azzam KM, Guardiola JJ, Gowdy KM, Madenspacher JH, Gabor KA, Mueller GA, Lin WC, Lowe JM, Gruzdev A, Henderson MW, Draper DW, Merrick BA, Fessler MB (2019). Leucine-rich repeats and calponin homology containing 4 (Lrch4) regulates the innate immune response. *J Biol Chem* 294, 1997-2008. PMID: 30523158; PMCID: PMC6369294; <https://doi.org/10.1074/jbc.RA118.004300>
 35. Scott GJ, Gruzdev A (2019). Genome Editing in Mouse Embryos with CRISPR/Cas9. *Methods Mol Biol* 1960, 23-40. PMID: 30798518. Full text: https://doi.org/10.1007/978-1-4939-9167-9_2

36. Scoville D, Lichti-Kaiser K, Grimm S, Jetten A. GLIS3 binds pancreatic beta cell regulatory regions alongside other islet transcription factors. *The Journal of endocrinology*. 2019. ePub 2019/07/25. PubMed PMID: 31340201; PMCID: PMC6938561. Full text: <https://doi.org/10.1530/joe-19-0182>
37. Sueyoshi T, Sakuma T, Shindo S, Fashe M, Kanayama T, Ray M, Moore R, Negishi M (2019) A phosphorylation-deficient mutant of retinoid X receptor α at Thr 167 alters fasting response and energy metabolism in mice. *Laboratory Investigation*. 99: 1470-1483, in press (e-pub ahead of print). PMID: 31152145; PMCID: PMC6759383. Full text: <https://doi.org/10.1038/s41374-019-0266-1>
38. Liu J, Wang T, Creighton CJ, Wu SP, Ray M, Janardhan KS, Willson CJ, Cho SN, Castro PD, Ittmann MM, Li JL, Davis RJ, DeMayo FJ (2019). JNK represses Lkb-deficiency-induced lung squamous cell carcinoma progression. *Nat Commun* 10, 2148. PMID: 31089135; PMCID: PMC6517592; <https://doi.org/10.1038/s41467-019-09843-1>
39. Lai WS, Stumpo DJ, Wells ML, Gruzdev A, Hicks SN, Nicholson CO, Yang Z, Faccio R, Webster MW, Passmore LA, Blackshear PJ (2019). Importance of the Conserved Carboxyl-Terminal CNOT1 Binding Domain to Tristetraprolin Activity . *Mol Cell Biol* 39. PMID: 31036567; PMCID: PMC6580703. Full text: <https://doi.org/10.1128/MCB.00029-19>
40. Andres SN, Li ZM, Erie DA, Williams RS. Ctp1 protein-DNA filaments promote DNA bridging and DNA double-strand break repair. *J Biol Chem*. 2019;294(9):3312-20. ePub 2019/01/11. PubMed PMID: 30626735; PMCID: PMC6398140. Full text: <https://doi.org/10.1074/jbc.RA118.006759>
41. Jerschow E, Edin ML, Chi Y, Hurst B, Abuzeid WM, Akbar NA, Gibber M, Fried MP, Han W, Pelletier T, Ren Z, Keskin T, Roizen G, Lih FB, Gruzdev A, Bradbury JA, Schuster V, Spivack S, Rosenstreich D, Zeldin DC (2019). Sinus Surgery Is Associated with a Decrease in Aspirin-Induced Reaction Severity in Patients with Aspirin Exacerbated Respiratory Disease. *J Allergy Clin Immunol Pract* 7, 1580-1588. PMID: 30580047; PMCID: PMC6511299. Full text: <https://doi.org/10.1016/j.jaip.2018.12.014>
42. Hsieh HHS, Agarwal S, Cholok DJ, Loder SJ, Kaneko K, Huber A, Chung MT, Ranganathan K, Habbouche J, Li J, Butts J, Reimer J, Kaura A, Drake J, Breuler C, Priest CR, Nguyen J, Brownley C, Peterson J, Ozgurel SU, Niknafs YS, Li S, Inagaki M, Scott G, Krebsbach PH, et al. [6 more authors] (2019). Coordinating Tissue Regeneration Through Transforming Growth Factor- β Activated Kinase 1 Inactivation and Reactivation. *Stem Cells* 37, 766-778. PMID: 30786091; PMCID: PMC6542699. Full text: <https://doi.org/10.1002/stem.2991>
43. Hewitt SC, Lierz SL, Garcia M, Hamilton KJ, Gruzdev A, Grimm SA, Lydon JP, Demayo FJ, Korach KS (2019). A distal super enhancer mediates estrogen-dependent mouse uterine-specific gene transcription of Igf1 (insulin-like growth factor 1). *J Biol Chem* 294, 9746-9759. PMID: 31073032; PMCID: PMC6597841. Full text: <https://doi.org/10.1074/jbc.RA119.008759>
44. Liu J, Wang T, Willson CJ, Janardhan KS, Wu SP, Li JL, DeMayo FJ (2019). ERBB2 Regulates MED24 during Cancer Progression in Mice with and Deletion in the Pulmonary Epithelium. *Cells*. PMID: 31248101; PMCID: PMC6627404; <https://doi.org/10.3390/cells8060615>
45. Scott GJ, Gruzdev A, Hagler TB, Ray MK (2018). Trans-inner Cell Mass Injection of Embryonic Stem Cells Leads to Higher Chimerism Rates. *J Vis Exp*. PMID: 29912196; PMCID: PMC6085124; <https://doi.org/10.3791/56955>
46. Ungewitter EK, Rotgers E, Kang HS, Lichti-Kaiser K, Li L, Grimm SA, Jetten AM, Yao HH (2018). Loss of Glis3 causes dysregulation of retrotransposon silencing and germ cell demise in fetal mouse testis. *Sci Rep* 8(1):9662. PMID: 29941866; PMCID: PMC6018429; <https://doi.org/10.1038/s41598-018-27843-x>
47. Jerschow E, Edin M, Han WG, Lih FB, Gruzdev A, Bradbury AJ, Abuzeid WM, Akbar N, Pelletier T, Keskin T, Spivack S, Schuster V, Rosenstreich DL, Zeldin DC. Differential response to aspirin-lysine of 15-Hydroxyeicosatetraenoic Acid in Nasal Polyp Supernatants from Aspirin-Exacerbated Respiratory Disease Patients. *J Allergy Clin Immunol*. 2018;141(2):AB181-AB. Full-text: <https://doi.org/10.1016/j.jaci.2017.12.577>

48. Wang X, Li X, Wang T, Wu SP, Jeong JW, Kim TH, Young SL, Lessey BA, Lanz RB, Lydon JP, DeMayo FJ (2018). SOX17 regulates uterine epithelial-stromal cross-talk acting via a distal enhancer upstream of *Ihh*. *Nat Commun* 9(1):4421. PMID: 30356064; PMCID: PMC6200785; <https://doi.org/10.1038/s41467-018-06652-w>
49. Hofer M, Hoferová Z, Gruzdev A, Dušek L, Falk M (2018). Impaired post-irradiation survival of cyclooxygenase-2-deficient mice. *Physiol Res* 67, 809-812. PMID: 30044110; <https://doi.org/10.33549/physiolres.933890>
50. Martin NP, Myers P, Goulding E, Chen SH, Walker M, Porter TM, Van Gorder L, Mathew A, Gruzdev A, Romeo C (2018). En masse lentiviral gene delivery to mouse fertilized eggs via laser perforation of zona pellucida. *Transgenic Res* 27, 39-49. PMID: 29442214; PMCID: PMC5990369; <https://doi.org/10.1007/s11248-017-0056-8>
51. Stefkovich ML, Arao Y, Hamilton KJ, Korach KS (2018). Experimental models for evaluating non-genomic estrogen signaling. *Steroids* 133, 34-37. PMID: 29122548; PMCID: PMC5864539; <https://doi.org/10.1016/j.steroids.2017.11.001>
52. Edin ML, Hamedani BG, Gruzdev A, Graves JP, Lih FB, Arbes SJ, Singh R, Orjuela Leon AC, Bradbury JA, DeGraff LM, Hoopes SL, Arand M, Zeldin DC (2018). Epoxide hydrolase 1 (EPHX1) hydrolyzes epoxyeicosanoids and impairs cardiac recovery after ischemia. *J Biol Chem* 293, 3281-3292. PMID: 29298899; PMCID: PMC5836130; <https://doi.org/10.1074/jbc.RA117.000298>
53. Martin NP, Myers P, Goulding E, Chen SH, Walker M, Porter TM, Van Gorder L, Mathew A, Gruzdev A, Scappini E, Romeo C (2018). Laser-assisted Lentiviral Gene Delivery to Mouse Fertilized Eggs. *J Vis Exp*. PMID: 30451224; <https://doi.org/10.3791/58327>
54. Nicol B, Grimm SA, Gruzdev A, Scott GJ, Ray MK, Yao HH (2018). Genome-wide identification of FOXL2 binding and characterization of FOXL2 feminizing action in the fetal gonads. *Hum Mol Genet* 27, 4273-4287. PMID: 30212841; PMCID: PMC6276834; <https://doi.org/10.1093/hmg/ddy312>
55. Arao Y, Hamilton KJ, Lierz SL, Korach KS (2018). N-terminal transactivation function, AF-1, of estrogen receptor alpha controls obesity through enhancement of energy expenditure. *Mol Metab* 18, 68-78. PMID: 30287090; PMCID: PMC6308972; <https://doi.org/10.1016/j.molmet.2018.09.006>
56. Jetten AM (2018) GLIS1-3 transcription factors: critical roles in the regulation of multiple physiological processes and diseases. *Cell Mol Life Sci*, in press (e-pub ahead of print); PMID: 29779043; PMCID: PMC6123274; <https://doi.org/10.1007/s00018-018-2841-9>
57. Vasquez YM, Wang X, Wetendorf M, Franco HL, Mo Q, Wang T, Lanz RB, Young SL, Lessey BA, Spencer TE, Lydon JP, DeMayo FJ (2018). FOXO1 regulates uterine epithelial integrity and progesterone receptor expression critical for embryo implantation. *PLoS Genet* 14, e1007787. PMID: 30452456; PMCID: PMC6277115 <https://doi.org/10.1371/journal.pgen.1007787>