Curriculum Vitae

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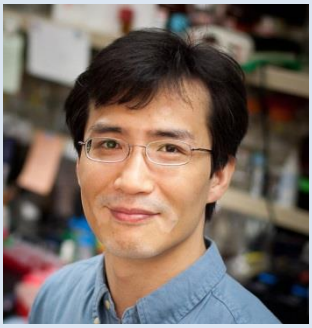

EDUCATION/PROFESSIONAL DEVELOPMENT

2013-Present — ***Assistant Professor,*** *Genome Instability Research Center (GIRC), Ajou University, School of Medicine, Suwon, Korea*

2005-2013 — ***Staff Scientist,*** *Department of Genetics & Tumor Cell Biology, St. Jude Children's Research Hospital, Tennessee, USA* (Mentor; Dr. Peter J. McKinnon)

1999-2005 — ***Post Doc. Research Associate,*** *Department of Genetics, St. Jude Children's Research Hospital, Tennessee, USA* (Mentor; Dr. Peter J. McKinnon)

1995-1999 — ***Ph.D.,*** *Department of Molecular and Integrative Physiology, University of Kansas, Medical School, Kansas, USA* (Mentor; Dr. James L. Voogt) **Physiology/Neuroscience**
Dissertation: Neuronal mechanisms regulating prolactin secretion during pregnancy

1991-1993 — ***M.S.,*** *Department of Biology, Sungkyunkwan University, Suwon, Korea* (Mentors; Drs. Suk-Hee Kang and Kee-Chang Sung) **Animal Physiology**
Thesis: Activity during ovarian development and partial purification of alkaline phosphatase in *Culex pipiens pallens*

1986-1990 — ***B.S.,*** *Department of Biology, Sungkyunkwan University, Suwon, Korea*

ACADEMIC HISTORY/ TRAINING

1995- 1999 — *DEPARTMENT OF MOLECULAR AND INTEGRATIVE PHYSIOLOGY, THE UNIVERSITY OF KANSAS MEDICAL CENTER, KANSAS, USA*
Research & Teaching Assistant

1994-1995 — *DEPARTMENT OF ANATOMY AND HISTOLOGY, MEDICAL COLLEGE, HALLYM UNIVERSITY, CHOONCHUN, KOREA*
Research & Teaching Assistant

1992-1993 — *DEPARTMENT OF BIOLOGY, SUNG KYUN KWAN UNIVERSITY, SUWON, KOREA*
Teaching Assistant

1991.7 — *LABORATORY OF RADIATION BIOLOGY, KOREA ATOMIC ENERGY INSTITUTE, DAEJUN, KOREA*
Trainee

PEER-REVIEWED PUBLICATIONS

In preparation (2013)

- ***35.*** *Frederique Zindy, Daisuke Kawauchi,* ***Youngsoo Lee****, Olivier Ayrault, Leila Ben Merzoug, Tyler Jacks, Gregory J. Hannon, Peter J. McKinnon, Andrea Ventura, and Matine F. Roussel*: Role of the mirR-17~92 cluster family and Dicer in cerebellar and medulloblastoma development., **Submitted**.

- ***34.*** *Sachin Katyal****, Youngsoo Lee****, Karin C. Nitiss, Susanna M. Downing, Yang Li, Jingfeng Zhao, Helen Russell, John H. J. :Petrini, John L. Nitiss, and Peter J McKinnon:* ATM prevents accumulation of pathogenic topoisomerase 1 lesions**, Submitted**

- ***33. Youngsoo Lee****, Helen Russell, Eric Brown, Sandy Chang, and Peter J McKinnon:* Pot1a prevents telomere dysfunction and ATM-dependent neuronal loss**., Submitted**

2012

- ***32. Youngsoo Lee****, Sachin Katyal, Susanna Downing, Jingfeng Zhao, Helen R. Russell, and Peter J. McKinnon:* Neurogenesis requires TopBP1 to prevent catastrophic replicative DNA damage in early progenitors**., Nature Neuroscience,** 2012; 15 (6):819-826. **(한빛사) (한빛사인터뷰)**

- ***31. Youngsoo Lee****,Erin R. P. Shull*, Pierre-Olivier Frappart*, Sachin Katyal, Vanessa Enriquez-Rios, Jingfeng Zhao, Helen R. Russell, Eric J. Brown, and Peter J. McKinnon:* ATR maintains select progenitors during nervous system development**., EMBO journal,** 2012; 31(5):1177-1189 ***equal contributions to the work. (한빛사)**

2011

- ***30.*** *Yankun Gao*, Sachin Katyal*,* ***Youngsoo Lee****, Yang Li, Jerold Regh, Helen R. Russell, and Peter J. McKinnon:* Ligase III is critical for mtDNA integrity but not Xrcc1-mediated nuclear DNA repair., **Nature,** 2011; 471(7337):240-244. ***equal contributions to the work.**

2010

- ***29.*** *Paul Gibson, Yiai Tong, Giles Robinson, Margaret C Thompson, D Spencer Currle, Christopher Eden, Tanya A. Kranenburg, Twala Hogg, Helen Poppleton, Julie Martin, David Finkelstein, Stanley Pounds, Aaron Weiss, Zoltan Patay, Matthew Scoggins, Robert Ogg, Yanxin Pei, Yanxin Pei, Zeng-Jie Yang, Sonja Brun,* ***Youngsoo Lee****, Frederique Zindy, Janet C Lindsey, Makoto M. Taketo, Frederick A Boop, Robert A Sanford, Amar Gajjar, Steven C Clifford, Martine F Roussel, Peter J McKinnon, David h Gutmann, David W Ellison, Robert Wechsler-Reya and Richard J Gilbertson:* Subtypes of medulloblastoma have distinct developmental origins., **Nature,** 2010; 468(7327):1095-1099.

2009

- ***28. Youngsoo Lee,*** *Sachin Katyal, Yang Li, Sherif F. El-Khamisy, Helen R. Russell, Keith W. Caldecott and Peter J. McKinnon*: Genesis of cerebellar interneurons and the prevention of neural DNA damage require *XRCC1*., **Nature Neuroscience,** 2009; 12(8):973-980**. (한빛사)**

- ***27.*** *Matilde Murga, Samuel Bunting, Maria F. Montana, Rebeca Soria, Francisca Mulero, Marta Canamero,* ***Youngsoo Lee,*** *Peter McKinnon, Andre Nussenzweig and Oscar Fernandez-Capetillo,* A mouse model of the ATR-Seckel shows embryonic replicative stress and accelerated aging.., **Nature Genetics,** 2009; 41(8):891-898**. Faculty of 1000 review**

(http://www.f1000biology.com/article/id/1163038)

- ***26.*** *Pierre-Olivier Frappart**, ***Youngsoo Lee**,* *Helen R. Russell, Nader Chalhoub, Young-Dong Wang, Kenji E. Orii, Jingfeng Zhao, Naomi Kondo, Suzanne J. Baker and Peter J. McKinnon*: Recurrent genomic alterations in medulloblastoma from DNA double strand break repair deficiency., **Proc., Natl., Acad., Sci.,** 2009; 106(6):1880-1885 ***equal contributions to the work.**

- ***25.*** *Erin Shull**, ***Youngsoo Lee**,* *Hironobu Nakane, Travis H. Stracker, Jingfeng Zhao, Helen R. Russell, John H. J. Petrini and Peter J. McKinnon*: Differential DNA damage signaling accounts for different neuropathology associated with A-TLD and NBS., **Genes & Development,** 2009; 23(2):171-180 ***equal contributions to the work.** **(mentioned on the cover)** **(한빛사)** **(한빛사 인터뷰)**

2007

- ***24. Youngsoo Lee,*** *Rika Kawagoe, Ken Sasai, Yang Li, Helen Russell, Tom Curran and Peter J. McKinnon*: Loss of Suppressor-of-Fused function promotes tumorigenesis., **Oncogene,** 2007; 26(44):6442-6447

- ***23.*** *Pierre-Olivier Frappart**, Youngsoo Lee**, Jayne Lamont and Peter J. McKinnon:* Brca2 is required for neurogenesis and the suppression of medulloblastoma., **EMBO journal,** 2007; 26(11):2732-2742

- ***22.*** *Simone Difilippantonio, Arkady Celeste, Michael J. Kruhlak, **Youngsoo Lee**, Michael J. Difilippantonio, Lionel Feigenbaum, Stephen P. Jackson, Peter McKinnon, André Nussenzweig*: Distinct domains in Nbs1 regulate irradiation-induced checkpoints and apoptosis., **Journal of Experimental Medicine**, 2007; 204(5):1003-1011

2006

- ***21.*** *Kenji E. Orii**, Youngsoo Lee**, Naomi Kondo and Peter J. McKinnon:* Selective utilization of nonhomologous end-joining and homologous recombination DNA repair pathways during nervous system development., **Proc. Natl. Acad. Sci.,** 2006; 103(26):10017-10022

- ***20. Youngsoo Lee,*** *Heather Miller, Helen Russell, Kelly Boyd, Tome Curran and Peter J. McKinnon: Patched2* modulates tumorigenesis in *Patched1* Heterozygous mice., **Cancer Research,** 2006; 66(14):6964-6971

- ***19.*** *Ken Sasai, Justyna T Romer, **Youngsoo Lee**, David Finkelstein, Christine Fuller, Peter J. McKinnon and Tom Curran*: Shh pathway activity is down-regulated in cultured medulloblastoma cells: implications for preclinical studies., **Cancer Research,** 2006; 66(8):4215-4222

2005

- ***18.*** *Fabienne Desmots, Helen R. Russell, **Youngsoo Lee,** Kelli Boyd and Peter J. McKinnon*: The reaper-binding protein scythe modulates apoptosis and proliferation during mammalian development., **Molecular and Cellular Biology,** 2005; 25(23):10329-10337

- ***17.*** *Tamar Uziel, Frederique Zindy, Suqing Xie, **Youngsoo Lee,** Antoine Forget, Susan Magdaleno, Jerold E. Regh, Christopher Calabrese, David Solecki, Charles G. Eberhart, Sarah E. Sherr, Sarah Plimmer, Steven C. Clifford, Mary E. Hatten, Peter J. McKinnon, Richard J. Gilbertson, Tom Curran, Charles J. Sherr and Martine F. Roussel*: The tumor suppressors Ink4c and p53 collaborate independently with Patched to suppress medulloblastoma formation., **Genes & Development,** 2005; 19(22):2656-2667 **(featured on the cover)**

2004

- ***16.*** *Michael M. Schuendeln, Roland P. Piekorz, Christian Wichmann**, Youngsoo Lee**, Peter J. McKinnon, Kelli Boyd, Yutaka takahashi and James N. Ihle*: The centrosomal, putative tumor suppressor protein TACC2 is dispensable for normal development, and deficiency does not lead to cancer., **Molecular and Cellular Biology**, 2004; 24(14):6403-6409

- ***15.*** *Amar Gajjar, Roberto Hernan, Mehmet Kocak, Christine Fuller**, Youngsoo Lee,** Peter J. McKinnon, Dana Wallace, Ching Lau, Murali Chintagumpala, David Ashley, Stewart Kellie, Larry Kun, and Richard J. Gilbertson*: Clinical, histophathological and molecular markers of prognosis: toward a new disease risk stratification system for medulloblastoma., **Journal of Clinical Oncology**, 2004; 22(6):984-993 **(editorial by Paul Graham Fisher, Peter C. Burger and Charles G. Eberhart in the same issue)**

2003

- ***14.*** *John R. Jeffers, Evan Parganas**, Youngsoo Lee**, Chunying Yang, JinLing Wang, Jennifer Brennan, Kirsteen H. MacLean, Jiawen Han, Thomas Chittenden, James N. Ihle, Peter J. McKinnon, John L. Cleveland and Gerard P. Zambetti*: Puma is an essential mediator of p53 dependent and independent apoptotic pathways., **Cancer Cell**, 2003; 4(4):321-328 **(preview by Jian Yu and Lin Zhang, pp 248-249 in the same issue), Faculty of 1000 review (http://www.f1000biology.com/article/id/1004692)**

- ***13. Youngsoo Lee,*** *Heather miller, Patricia Jensen, Roberto Herman, Michelle Connelly, Cynthia Wetmore, Frederique Zindy, Martine Roussel, Tom Curran, Richard Gilbertson, and Peter J. McKinnon:* A Molecular Fingerprint for Medulloblastoma., **Cancer Research**, 2003; 63(17):5428-5437

- ***12.*** *Heather L. Miller**, Youngsoo Lee**, Jinfeng Zhao, Miriam J. Chong and Peter J. McKinnon*: Atm and c-Abl cooperate in the response to genotoxic stress during nervous system development., **Developmental Brain Research**, 2003; 145(1):31-38

2002

- ***11. Youngsoo Lee*** *and Peter J. McKinnon*: DNA Ligase IV suppresses medulloblastoma formation., **Cancer Research**, 2002; 62(22):6395-6399 **(featured on the cover), Faculty of 1000 review (http://www.f1000biology.com/article/id/1006994)**

- ***10.*** *Helen Russell**, Youngsoo Lee**, Heather Miller, Jinfeng Zho, and Peter J. McKinnon*: Murine ovarian development is not affected by inactivation of the Bcl-2 family member, Diva., **Molecular and Cellular Biology**, 2002; 22(19):6866-6870

2001

- ***9. Youngsoo Lee,*** *Miriam J. Chong and Peter J. McKinnon*: Ataxia Telangiectasia Mutated-dependent apoptosis after genotoxic stress in the developing nervous system is determined by cellular differentiation status., **Journal of Neuroscience**, 2001; 21(17):6687-6693

2000

- ***8. Youngsoo Lee****, Deborah E. Barnes, Tomas Lindahl and Peter J. McKinnon:* Neurodegeneration resulting from DNA ligase IV deficiency requires Atm., **Genes & Development**, 2000; 14(20):2576-2580 **(highlights by Alison Mitchell in Nature Molecular and Cellular Biology Review, 2000, vol. 1, 166)**

- ***7.*** *Shu-Ping Yang**, Youngsoo Lee** and James L. Voogt:* Involvement of beta-endorphin in modulation of prolactin secretion in response to mating., **Neuroendocrinology**, 2000; 72(1):20-28

- ***6. Youngsoo Lee***, *Shu-Ping Yang, Michael J. Soares and James L. Voogt:* Distribution of prolactin-releasing peptide (PrRP) mRNA in the rat brain., **Brain Research Bulletin** 2000; 51(2):171-176

1999

- ***5. Youngsoo Lee*** *and James L. Voogt*: Rhythmicity of beta-endorphinergic neuronal activity in the mediobasal hypothalamus during pregnancy in the rat., **Brain research** 1999; 837(1-2):152-160

- ***4. Youngsoo Lee*** *and James L. Voogt*: Feedback effects of placental lactogens on prolactin levels and Fos Related Antigen immunoreactivity of tuberoinfundibular dopaminergic neurons in the arcuate nucleus during pregnancy in the rat., **Endocrinology** 1999; 140(5):2159-2166

- ***3.*** *Shuping Yang****, Youngsoo Lee****, and James L. Voogt:* Fos expression in the female rat brain during the proestrous prolactin surge and following mating., **Neuroendocrinology** 1999; 69(4):281-289

1998

- ***2. Youngsoo Lee***, *Lydia A. Arbogast and James L. Voogt:* Semicircadian rhythms of c-Fos expression in several hypothalamic areas during pregnancy in the rat: Relationship to prolactin secretion., **Neuroendocrinology** 1998; 67(2):83-93

1993

- ***1. Youngsoo Lee***, *Seung-Hoon Lee, Young-Min Park and Kee-Chang Sung*: Activity of Alkaline Phosphatase from the Mosquito, *Culex pipiens pallens.*, **Korean J. Zool**. 1993; 36:425-432 (IN KOREAN WITH ENGLISH ABSTRACT)

PEER-REVIEWED REVIEWS AND BOOKS

2009

- ***4. Youngsoo Lee*** *and Peter J. McKinnon:* Chapter 19: Detection of apoptosis in the Central Nervous System., In Peter Erhardt and Ambrus Toth (eds). **Apoptosis, Methods and Protocols, 2nd edition, Methods in Molecular Biology**, Springer, New York, USA, 2009; 559:273-282

2007

- ***3. Youngsoo Lee*** *and Peter J. McKinnon:* Responding to DNA double strand breaks in the nervous system (**invited review**) "Special Issues on Genome instability and DNA repair in brain ageing and neurological disease"., **Neuroscience,** 2007; 145(4):1365-1374

2001

- ***2.*** *J.L. Voogt****, Y. Lee****, S. Yang and L. Arbogast*: Regulation of prolactin secretion during pregnancy and lactation., In J.A Russell, A.J. Douglas, R.J. Windle and C.D. Ingram (eds): **Progress in Brain Research, Vol. 133: The Maternal Brain**, Elsevier Science, Amsterdam: Netherlands, 2001; 133:173-185

2000

- ***1. Youngsoo Lee*** *and Peter J. McKinnon:* ATM dependent apoptosis in the nervous system. (**invited minireview**), **Apoptosis**, 2000; 5(6):523-529