

Prson Gautam

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Education

- 02/2013- 01/2018 **Doctor of Philosophy. Faculty of Medicine, University of Helsinki, Finland**
Thesis: Chemical systems biology studies of triple negative breast cancer cell lines.
- 09/2009- 10/2011 **Master of Science. Uppsala University, Uppsala, Sweden.**
Two years masters degree: Masters in Applied Biotechnology
Thesis: Signaling mechanisms of the endothelial angiotensin-Tie pathway - The regulation and effects of proteolytic processing of Tie1 receptor and autocrine Ang2 secretion in endothelial cells.
- 08/2004-08/2008 **Bachelor of Technology. Kathmandu University, Dhulikhel, Kavre, Nepal.**
Four years undergraduate Degree: B.Tech in Biotechnology
Thesis: Isolation and identification of bacteria present in Nepalese paper currency.

Research Experience

- 01/2018- ongoing **Working as Post-doctoral researcher**
Topic: Identification of combinatorial drug therapy against pancreatic ductal adenocarcinoma (PDAC)
Supervisor: Prof. Krister Wennerberg, PhD, FIMM, HiLIFE, University of Helsinki
- 02/2013- 01/2018 **Worked as a PhD student**
Topic: Functional study of triple negative breast cancer (TNBC).
Supervisor: Prof. Krister Wennerberg, PhD, FIMM, HiLIFE, University of Helsinki
- 09/2011-12/2012 **Worked as a research assistant (PhD student) for sixteen month**
Topic: Signaling Mechanisms of the angiotensin-Tie pathway
Supervisor: Pipsa Saharinen, PhD, University of Helsinki
- 02/2011-8/2011 **Six months of Masters thesis**
Topic: Signaling Mechanisms of the Endothelial Angiotensin-Tie Pathway - The regulation and effects of proteolytic processing of Tie1 receptor and autocrine Ang2 secretion in endothelial cells.
Supervisor: Pipsa Saharinen, PhD, University of Helsinki
- 11/2010-1/2011 **Three months of practical training**
Lab: Pipsa Saharinen, PhD, University of Helsinki
- 06/2010-08/2010 **Worked as research trainee**
Topic: Structural and functional study of thymidine kinase.
Lab: Prof. Staffan Eriksson, Swedish Institute of Agricultural Science
- 02/2008-08/2008 **Six month of undergraduate thesis**

Topic: Isolation and identification of bacteria present in Nepalese paper currency.
Supervisor: Janardan Lamichhane, PhD

Techniques yet learnt: High throughput drug screening, RNAi screening, animal cell culture, bacterial culture, cloning, retrovirus and lentivirus production, transfection, immune-precipitation and western blotting, immunofluorescence staining, epifocal and confocal microscopy.

01/2008-02/2008 **Time Pharmaceuticals Pvt. Ltd. Nawalparasi, Nepal**
Served as an intern in Time Pharmaceuticals Pvt. Ltd, Nawalparasi, Nepal.

Scientific Activities

Organizer

01/2014- ongoing **FIMM Think Different Seminar Series, Biomedicum Helsinki, Finland**
04-07/09/2017 **8th Annual Network Meeting of the Nordic EMBL Partnership, Helsinki, Finland**

Scientific Meetings

26-30/10/2017 **AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics: Discovery, Biology, and Clinical Applications, Philadelphia, USA**
Poster Presentation: A chemical systems biology approach to de-convolve kinase addiction in triple negative breast cancer

04-07/09/2017 **8th Annual Network Meeting of the Nordic EMBL Partnership, Helsinki, Finland**
Poster Presentation: Improved drug response quantification based on the elimination of experimental variabilities in high-throughput cell-based Screenings

22-23/05/2017 **EU-Life scientific meeting 2017; Principle of Homeostasis, Berlin, Germany**
Poster Presentation: Improved drug response quantification based on the elimination of experimental variabilities in high-throughput cell-based Screenings

06-08/06/2016 **Perspectives in Translational Medicine (conference), EMBL Heidelberg, Germany**
Poster Presentation: Identification of stratified combination drug therapies against *KRAS*-mutant pancreatic ductal adenocarcinoma (PDAC)

01-06/11/2015 **Network and Pathways (training), EMBL-EBI-Wellcome Genome Campus, Hinxton, UK**

07-10/09/2015 **6th Nordic Molecular Medicine Network Meeting, Århus, Denmark**
Poster Presentation: Identification of subgroups of triple negative breast cancer cells with selective responses to mTOR, CDK, mitotic and proteasome inhibitors.

07-11/02/2015 **4th Annual SLAS International Conference and Exhibition, Washington DC, USA**
Poster presentation: Identification of subgroups of triple negative breast cancer cells with selective responses to mTOR, CDK, mitotic and proteasome inhibitors.

09-13/12/2014 **37th Annual San Antonio Breast Cancer Symposium, San Antonio, TX, USA**

Poster presentation: Identification of subgroups of triple negative breast cancer cells with selective responses to mTOR, CDK, mitotic and proteasome inhibitors.

- 26-28/08/2014 **5th Nordic Molecular Medicine Network Meeting, Umeå, Sweden**
Oral presentation: Identification of subgroups of triple negative breast cancer cells with selective responses to mTOR, CDK, and mitotic inhibitors
- 09-10/06/2014 **Frontiers in Translational Cancer Research Symposium 2014, Helsinki, Finland**
Poster presentation: Functional profiling of triple-negative breast cancers using drugs and diverse kinase inhibitors.
- 10/12/2013 **2nd Helsinki Chemical Biology Symposium, Helsinki, Finland**
Poster presentation: Functional profiling of triple-negative breast cancers using drugs and diverse kinase inhibitors.
- 07-09/10/2013 **International Chemical Biology Society 2nd annual conference, Kyoto, Japan**
Poster presentation: Functional profiling of triple-negative breast cancers using drugs and diverse kinase inhibitors.
- 17-19/09/2013 **4th Nordic Molecular Medicine Network Meeting, Oslo, Norway**
Poster presentation: Kinome-wide exploration of triple-negative breast cancer cell lines identifies novel and diverse putative drug targets.
- 21/09/2011 **Faculty of Medicine Science Fair 2011, University of Helsinki, Helsinki, Finland**
Poster presentation: Anti-angiogenic targeting of the Angiopoietin-Tie signaling pathway in cancer.
- 10-12/11/2008 **The fifth National Conference on Science and Technology, Nepal Academy of Science and Technology, Kathmandu, Nepal**
Participated

Grants/Awards

- 12/2017 **Dissertation Grant 2018, Cancer Society of Finland**
- 23/11/2017 **Dissertation Grant 2018, Orion Research Foundation**
- 15/09/2017 **Biomedicum Helsinki Young Scientist Grant 2017**
- 21/03/2017 **University of Helsinki Chancellor's Travel Grant**
- 26/09/2016 **Biomedicum Helsinki Young Scientist Grant 2016**
- 01-12/2015 **One year DPBM UH-funded doctoral candidate position**
- 21/04/2015 **University of Helsinki Chancellor's Travel Grant**
- 02/2015 **Tony B. Academic Travel Award, SLAS 4th Annual Conference and Exhibition, February 7-11, 2015**
- 10/2014 **AACR Scholar-in-Training Award, - 29th Annual San Antonio Breast Cancer**

Symposium December 9-13, 2014

27/03/2014

University of Helsinki Chancellor's Travel Grant

Publication

Nepal C, O'Rourke CJ, Oliveira DV, Taranta A, Shema S, **Gautam P**, Calderaro J, Barbour A, Raggi C, Wennerberg K, Wang XW, Lautem A, Lewis RR & Andersen JB. "Genomic perturbation reveal distinct regulatory networks in intrahepatic cholangiocarcinoma." *Hepatology*, 2017

Tang J, Tanoli ZR, Ravikumar B, Alam Z, Rebane A, Vähä-Koskela M, Peddinti G, van Adrichem AJ, Wakkinen J, Jaiswal A, Karjalainen E, **Gautam P**, He L, Parri E, Khan S, Gupta A, Ali M, Yetukuri L, Gustavsson AL, Seashore-Ludlow B, Hersey A, Leach AR, Overington JP, Repasky G, Wennerberg K, and Aittokallio T. "Drug Target Commons: a community-effort to build a consensus knowledge base for drug-target interactions." *Cell Chem Biol*. S2451-9456(17)30426-9, 2017

Gautam P, Karhinen L, Szwajda A, Jha SK, Yadav B, Aittokallio T, Wennerberg K. "Identification of selective cytotoxic and synthetic lethal drug responses in triple negative breast cancer cells." *Mol Cancer*, 15 (1):34, 2016

Szwajda A, **Gautam P**, Karhinen L, Tang J, Yadav B, Jha SK, Saarela J, Turunen L, Pemovska T, Wennerberg K & Aittokallio T. "Systematic mapping of kinase addiction combinations in breast cancer cells by integrating drug sensitivity and selectivity profiles." *Chem Biol*, 22(8):1144-55, 2015.

Mpindi JP, Yadav B, Östling P, **Gautam P**, Malani D, Murumägi A, Hirasawa A, Kangaspeska S, Wennerberg K, Kallioniemi O & Aittokallio T. "Consistency in drug response profiling." *Nature*, 540 (7631): E5-E6, 2016.

Hayes TK, Neel NF, Hu C, **Gautam P**, Chenard M, Long B, Aziz M, Kassner M, Bryant KL, Pierobon M, Marayati R, Kher S, George SD, Xu M, Wang-Gilam A, Samatar AA, Maitra A, Wennerberg K, Petricoin III EF, Yin HH, Nelkin B, Cox AD, Yeh JJ, Der CJ. "Long-Term ERK inhibition in *KRAS*-mutant pancreatic cancer is associated with MYC degradation and senescence-like Growth suppression." *Cancer Cell*, 29(1):75-89, 2015.

Al-Ali H, Lee DH, Danzi MC, Nassif H, **Gautam P**, Wennerberg K, Zuercher B, Drewery DH, Lee JK, Lemmon VP, Bixby JL. "Rational polypharmacology: systematically identification and engaging multiple drug targets to promote axon growth." *ACS Chem Biol*, 10(8):1939-51, 2015.

Duellman S, Zhou W, Meisenheimer P, Vidugiris G, Cali J, **Gautam P**, Wennerberg K, and Vidugiriene J. "Bioluminescent, non-lytic, real-time cell viability assay and use in inhibitor screening." *Assay Drug Dev Technol*, 13(8):456-465, 2015.

Hakanpää L, Sipilä T, Leppänen VM, **Gautam P**, Nurmi H, Eklund L, Ivaska J, Alitalo K & Saharinen P. "Endothelial destabilization by angiopoietin-2 via integrin β 1 activation." *Nat Commun*, 6:5962, 2015.

Vidugiriene J, Leippe D, Sobol M, Vidugiris G, Zhou W, Meisenheimer P, **Gautam P**, Wennerberg K, Cali J. "Bioluminescent Cell-Based NAD(P)/NAD(P)H assays for rapid dinucleotide measurement and inhibitor screening." *Assay Drug Dev Technol*, 12(9-10):514-526, 2014.

Tuuminen R, Nykänen AI, Saharinen P, **Gautam P**, Arnaudova R, Rouvinen E, Tammi R, Rilla K, Krebs R, Lemström KB. "Donor simvastatin treatment prevents ischemia-reperfusion and acute kidney injury by preserving microvascular barrier function." *Am J Transplant*, 13(8):2019-2034, 2013.

Lamichhane J, Adhikari S, **Gautam P**, Maharjan R, Dhakal B. “Risk of Handling Paper Currency in Circulation Chances of Potential Bacterial Transmittance.” Nepal Journal of Science and Technology, 10, 2009.