

ANITA ROY

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RESEARCH INTERESTS

Myeloid haematopoiesis; cytoskeleton in platelet and RBC biology; cellular signaling in myeloproliferative neoplasm and leukemia

EDUCATION

- Ph.D. (Thesis title: Cross talk of self-renewal pathways and haematopoiesis; research conducted at: Saha Institute of Nuclear Physics) University of Calcutta, 2014
- Post-M.Sc. Associateship in Biophysics, Saha Institute of Nuclear Physics, 2007-08
- M.Sc. in Biophysics, Molecular Biology and Genetics, University of Calcutta, 2007
- B.Sc. in Microbiology (Major) from Lady Brabourne College, University of Calcutta, 2005

RESEARCH EXPERIENCE

Sep 2019- present : Asst. Professor, Kusuma School of Biological Sciences, IIT Delhi, India

May 2016 – Aug 2019 : Post-doctoral researcher, Ludwig Institute for Cancer Research, Brussels, Belgium

May 2014 - Apr 2016 : Post-doctoral researcher, Institut Gustave Roussy, INSERM, Paris, France

Jun 2008 – Mar 2014 : PhD student, Saha Institute of Nuclear Physics, Kolkata, India

AWARDS and HONORS:

- DBT-Wellcome trust intermediate fellowship, India , 2019
- Post-doctoral fellowship from FRS-FNRS, Belgium, 2017
- Research Grant from King Baudouin Foundation, Belgium 2017
- Post-doctoral fellowship from de Duve Institute, Belgium, 2016.
- Post-doctoral fellowship and research grant from Fondation Recherche Medicale (FRM), France, 2014.
- Awarded DST-INSPIRE faculty fellowship by Dept. of Science and Technology (DST), 2014.
- Travel grant from Indian Council of Medical Research (ICMR) to attend the Cold Spring Asia Conference, China. 2012
- Qualified the National Eligibility Test (CSIR-NET), 2007.

RESEARCH PUBLICATIONS:

1. C Pecquet*, I Chachoua*, **A Roy***, T Balligand*, G Vertenoil, E Leroy, R Albu, J Defour, H Nivarthi, E Hug, E Xu, Y Ould-Amer, C Mouton, D Colau, D Vertommen, M Shwe, C Marty, I Plo, W Vainchenker, R Kralovics and S Constantinescu. Calreticulin mutants as oncogenic rogue chaperones for TpoR and traffic-defective pathogenic TpoR mutants. **Blood** 2019; 133:2669-2681. DOI:10.1182/blood-2018-09-874578 (*equal authorship)
2. **A. Roy**, L. Lordier, S. Mazzi, Y. Chang, V. Lapierre, J. Larghero, N. Debili, H. Raslova, W. Vainchenker. *Activity of nonmuscle myosin II isoforms determines localization at the cleavage furrow of megakaryocytes.* **Blood** 2016; 128:3137-3145 DOI:10.1182/blood-2016-04-711630 (Accompanied by an editorial comment in the same issue)

3. **A. Roy**, L. Lordier, C. Pioche-Durieu, S. Souquere, L. Roy, P. Rameau, V. Lapierre, E. Le Cam, I. Plo, N. Debili, H. Raslova, W. Vainchenker. *Uncoupling of the Hippo and Rho pathways allows megakaryocytes to escape the tetraploid checkpoint*. **Haematologica** 2016 Dec; 101(12):1469-1478. DOI:10.3324/haematol.2016.149914 (Accompanied by an editorial comment in the same issue)
4. E. Mahfoudhi, L. Lordier, C. Marty, J. Pan, **A. Roy**, L. Roy, P. Rameau, S. Abbes, N. Debili, H. Raslova, Y. Chang, L. Debussche, W. Vainchenker, I. Plo. *P53 activation inhibits all types of hematopoietic progenitors and all stages of megakaryopoiesis*. **Oncotarget** 2016 May 31; 7(22):31980-92. DOI:10.18632/oncotarget.7881
5. I. Badirou, J. Pan, S. Souquere, C. Legrand, G. Pierron, A. Wang, A. Eckly, **A. Roy**, C. Gachet, W. Vainchenker, Y. Chang, C. Léon. *Distinct localizations and roles of nonmuscle myosin II during proplatelet formation and platelet release*. **Journal of Thrombosis and Haemostasis** 2015 May; 13(5):851-9. DOI:10.1111/jth.12887
6. **A. Roy**, S. Banerjee. *p27 and Leukemia. Cell Cycle and Beyond*. **Journal of Cellular Physiology** 2015 March; 230(3):504-9. DOI:10.1002/jcp.24819
7. S. Haldar[#], **A. Roy**[#], S. Banerjee. *Differential regulation of MCM7 and its intronic miRNA cluster miR-106b-25 during megakaryopoiesis induced polyploidy*. **RNA Biology** 2014; 11(9):1137-47. DOI:10.4161/rna.36136 ([#] equal authorship)
8. I. Badirou, J. Pan, C. Legrand, A. Wang, L. Lordier, S. Boukour, **A. Roy**, W. Vainchenker, Y. Chang. *Carboxyl-terminal depended recruitment of non-muscle myosin II to megakaryocyte contractile ring during polyploidization*. **Blood** 2014 Oct 16; 124(16):2564-2568. DOI:10.1182/blood-2014-06-584995
9. N. P. Basak, **A. Roy**, S. Banerjee. *Alteration of Mitochondrial Proteome Due to Activation of Notch1 Signaling Pathway*. **Journal of Biological Chemistry** 01/2014; 289(11):7320-7334. DOI:10.1074/jbc.M113.519405
10. **A. Roy**, S. Haldar, N. P. Basak, S. Banerjee. *Molecular cross talk between Notch1, Shh and Akt pathways during erythroid differentiation of K562 and HEL cell lines*. **Experimental Cell Research** 2014 January; 320(1):69-78. DOI:10.1016/j.yexcr.2013.09.019
11. **A. Roy**, L. Lahiry, D. Banerjee, M. Ghosh, S. Banerjee. *Increased Cytoplasmic Localization of p27 and Its Modulation of RhoA Activity during Progression of Chronic Myeloid Leukemia*. **PLoS ONE** 2013 October; 8(10):e76527. DOI:10.1371/journal.pone.0076527
12. **A. Roy**, N. P. Basak, S. Banerjee. *NOTCH1 intracellular domain increases cytoplasmic EZH2 levels during early megakaryopoiesis*. **Cell Death & Disease** 2012 August; 3(8):e380. DOI:10.1038/cddis.2012.119

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