

RITOBHRATA GOSWAMI

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Academic Qualification:

Sl.No.	Degree	University	Year	Subjects
1	B. Tech	West Bengal University of Technology, India	2005	Biotechnology
2	M.E	Birla Institute of Technology & Science, Pilani, India	2007	Biotechnology
3	Ph.D	Indiana University, Indianapolis, USA	2012	Immunology

Work experience (in chronological order)

Sl.No.	Positions held	Name of the Institute	From	To
1.	Postdoctoral fellow	Icahn School of Medicine at Mount Sinai, New York, USA	Nov 2012	Apr 2014
2.	Assistant Professor	Division of Biological & Life Sciences, Ahmedabad University, India	June 2014	November 2016
3.	Assistant Professor	School of Bioscience, IIT Kharagpur, India	December 2016	Present

Professional Recognition

Sl.No.	Name of Award	Awarding Agency	Year
1.	Indiana University Graduate School Translational Fellowship	Indiana University, Indianapolis, USA	2008
2.	American Association of Immunologists Abstract Trainee Award	American Association of Immunologists	2011
3.	National Graduate Student Research Conference	National Institutes of Health, USA	2011
4.	American Academy of Allergy, Asthma & Immunology Travel Scholarship	American Academy of Allergy, Asthma & Immunology	2014

Publications

- Vyas, SP., Hansda, A., Kaplan, MH., and **Goswami, R.** Calcitriol regulates the differentiation of IL-9-secreting Th9 cells by modulating the transcription factor PU.1. Accepted for publication in the *Journal of Immunology*.
- Vyas, SP.,* Hansda, A.,* and **Goswami, R.** Rheumatoid Arthritis: 'melting pot' of T helper subsets. 2019. *Int Rev Immunol.* 3:1-20. * Contributed equally.
- Vyas, SP., and **Goswami, R.** Gold nanoparticles downregulate inflammation by attenuating Toll-like receptor signaling pathway in lung adenocarcinoma cells. 2019. *Nanomedicine.* 14(3):229-253.
- Vyas, SP., and **Goswami, R.** A decade of Th9 cells: Role of Th9 cells in inflammatory bowel disease. 2018. *Front Immunol.* 9:1139.
- Vyas, SP., and **Goswami, R.** Striking the right immunological balance prevents progression of Tuberculosis. 2017. *Infamm Res.* 66(12):1031-1056.
- Yogi, M., and **Goswami, R.** Cytotoxicity and intracellular uptake of fluorescent BSA-AuNCs from human monocyte-derived immature dendritic cells. 2017. *J. Bionanosci.* 11:160-167.

7. **Goswami, R.**, Blazquez, AB., Kosoy, R., Rahman, A., Nowak-Wegrzyn, A and Berin, MC. Systemic innate immune activation in food protein induced enterocolitis syndrome (FPIES). 2017. *J. Allergy Clin. Immunol.* 139(6):1885-1896.e9.
8. **Goswami, R.**, and Kaplan, MH. STAT transcription factors in T cell control of health and disease. 2017. *Int. Rev. Cell Mol. Biol.* 331:123-180.
9. Roy, DN., **Goswami, R.**, and Pal, A. Nanomaterial and Toxicity: what can proteomics tell us about the nanotoxicology? 2017. *Xenobiotica.* 47(7):632-643.
10. Roy, DN*., **Goswami, R***., and Pal, A. The insect repellents: A silent environmental chemical toxicant to the health. 2017. *Environ. Toxicol. Pharmacol.* 50:91-102. * Contributed equally.
11. **Goswami, R.**, and Kaplan, MH. Essential vitamins for an effective T cell response. 2016. *World J. Immunol.* 6(1): 39-59.
12. Roy, DN., and **Goswami, R.** Drugs of abuse and addiction: a slippery slope toward liver injury. 2015. *Chem-Biol Interactions.* 255:92-105.
13. Richard, AC*., Tan, C*., Hawley, ET., Gomez-Rodriguez, J., **Goswami, R.**, Yang, XP., Cruz, AC., Penumetcha, P., Hayes, ET., Pelletier, M., Gabay, O., Walsh, M., Ferdinand, JR., Keane-Myers, A., Choi, Y., O'Shea, JJ., Al-Shamkhani, A., Kaplan, MH., Gery, I*., Siegel, RM.,* and Meylan, F*. The TNF-family ligand TL1A and its receptor DR3 promote T-cell mediated allergic immunopathology by enhancing differentiation and pathogenicity of IL-9 producing T cells. 2015. *J. Immunol.* 194(8): 3567-3582. * Contributed equally.
14. Tordesillas, L*., **Goswami, R***., Benedé, S., Grishina, G., Dunkin, D., Järvinen, KM., Maleki, SJ., Sampson, HA., and Berin, MC. Skin exposure promotes a Th2-dependent sensitization to peanut allergens. 2014. *J. Clin. Invest.* 124(11):4965-75. * Contributed equally.
15. Jabeen, R., **Goswami, R.**, Awe, O., Kulkarni, A., Nguyen, ET., Attenasio, A., Walsh, D., Olson, MR., Kim, MH., Tepper, RS., Sun, J., Kim, C., Taparowsky, EJ., Zhou, B., and Kaplan, MH. Th9 cell development requires a BATF-regulated transcriptional network. 2013. *J Clin Invest.* 123(11):4641-53.
16. **Goswami, R.**, and Kaplan, MH. Yoking OX40 to regulation of IL-9. 2012. *Nat. Immunol.* 13(10): 942-943.
17. **Goswami, R.**, and Kaplan, MH. Gcn5 is required for PU.1-dependent IL-9 induction in Th9 cells. 2012. *J. Immunol.* 189(6): 3026-3033.
18. **Goswami, R***., Jabeen, R*., Yagi, R., Pham, D., Zhu, J., Goenka, S., and Kaplan, MH. STAT6-dependent regulation of Th9 development. 2012. *J. Immunol.* 188(3): 968-975.*Contributed equally.
19. Jabeen, R., Chang, HC., **Goswami, R.**, Nutt, SL., and Kaplan, MH. The Transcription Factor PU.1 Regulates $\gamma\delta$ T Cell Homeostasis. 2011. *PLoS One.* 6(7):e22189.
20. Kaplan, MH., Glosson., NL., Stritesky, GL., Yeh, N., Kinzfohl, J., Rohrabough, SL., **Goswami, R.**, Pham, D., Levy, DE., Brutkiewicz, RR., Blum, JS., Cooper, S., Hangoc, G., and Broxmeyer, HE. STAT3-dependent IL-21 production from T helper cells regulates hematopoietic progenitor cell homeostasis. 2011. *Blood.* 117(23):6198-6201.
21. **Goswami, R.**, and Kaplan, MH. 2011. A Brief History of IL-9. *J. Immunol.* 186(6):3283-3288.
22. Stritesky, GL., Muthukrishnan, R., Sehra, S., **Goswami, R.**, Pham, D., Travers J., Nguyen ET., Levy, DE., and Kaplan, MH. The transcription factor STAT3 is required for T helper 2 cell development. 2011. *Immunity.* 34(1):39-49.
23. Chang, HC*., Sehra, S*., **Goswami, R.**, Yao, W., Yu, Q., Stritesky, GL., Jabeen, R., Han, L., Nguyen, ET., McKinley, CD., Tepper, RS., Robertson, MJ., Perumal, NB., Nutt, SL., and Kaplan, MH. The transcription factor PU.1 is required for the development of IL-9-secreting T cells and allergic inflammation. 2010. *Nat. Immunol.* 11(6):527-534. * Contributed equally.
24. Chang, HC., Han, L., **Goswami, R.**, Nguyen, ET., Pelloso, D., Robertson, MJ., and Kaplan, MH. Impaired development of human Th1 cells in patients with deficient expression of STAT4. 2009. *Blood.* 113(23):5887-5890.

Bold and Underline indicate publications as corresponding author

Book Chapters

1. **Goswami, R.** The structure-function bonhomie of JAK-STAT molecules. 2020. To be published in the book 'Jak-STAT Signaling in Diseases' by Taylor and Francis. In production
2. **Goswami, R.**, and Roy, DN. Toxicity of Terpenoids in Human Health. 2019. *Terpenoids Against Human Diseases*. 233-245.
3. Roy, DN., and **Goswami, R.** IL-9 Signaling Pathway: An Update. 2017. *Methods. Mol. Biol.* 1585:37-50.
4. **Goswami, R.** Th9 Cells: New Member of T Helper Cell Family. 2017. *Methods. Mol. Biol.* 1585:1-19.

Conferences

1. Vyas, SP., Hansda, AK., and **Goswami, R.** Vitamin D-vitamin D receptor regulates the differentiation of IL-9-secreting Th9 cells by modulating the transcription factor PU.1. Annual Conference of British Society for Immunology. Liverpool, UK, December 2-5, 2019.
2. Vyas, SP., and **Goswami, R.** Gold nanoparticles downregulate inflammation by attenuating Toll-like receptor 4 signaling pathway in lung adenocarcinoma cells. International Conference on Nanotechnology: Ideas, Innovations and Initiatives (ICN:3I-2017). IIT Roorkee, December 6-8, 2017.
3. Richard, A., Tan, C., Hawley, E., Gomez-Rodriguez, J., **Goswami, R.**, et al. The TNF family member TL1A promotes Th9 differentiation and Th9-mediated immunopathology. 101st Annual Meeting of American Association of Immunologists. Pittsburgh, PA, May 2-6, 2014.
4. **Goswami, R.**, Tordesillas, L., and Berin, MC. Epicutaneous Sensitization To Food Allergens Induce IL-4-Producing Cells and T Follicular Helper (Tfh) Cells In An IL-6 and IL-1-Dependent Manner. American Academy of Allergy, Asthma & Immunology Annual Meeting, San Diego, CA, Feb 28-March 4, 2014.
5. Jabeen, R., **Goswami, R.**, Awe, O., and Kaplan, MH. A transcription factor network in Th9 cells. 100th Annual Meeting of American Association of Immunologists. Honolulu, HI, May 3-7, 2013.
6. **Goswami, R.**, and Kaplan, MH. PU.1 regulates chromatin modification of the *IL9* gene in Th9 cells. Keystone Conference for the Biology of Cytokines, Keystone, CO, Feb 5-10, 2012.
7. **Goswami, R.**, and Kaplan, MH. PU.1 regulates chromatin modification of the *IL9* gene in Th9 cells. 6th National Graduate Student Research Conference. National Institutes of Health, Bethesda, MD Oct 16-18, 2011.
8. **Goswami, R.**, and Kaplan, MH. PU.1 regulates chromatin modification of the *IL9* gene in Th9 cells. 98th Annual Meeting of American Association of Immunologists. San Francisco, CA, May 13-17, 2011.
9. Sehra, S., Chang, HC., **Goswami, R.**, Han, L., Nguyen, E., Nutt, SL., and Kaplan, MH. PU.1 expression in T cells is required for the development of IL-9-producing T cells in allergic inflammation. 97th Annual Meeting of American Association of Immunologists. Baltimore, MD, May 7-11, 2010.

Undergoing Projects

1. INNO Indigo Research Award. Project coordinator from India. 2017-2020. Department of Science & Technology, Gol.
2. Institute Scheme for Innovative Research and Development (ISIRD). IIT Kharagpur. Principal Investigator. 2017-2020.
3. SERB-Core Research Grant. As Principal Investigator. 2020-2023. Department of Science & Technology, Gol.

Completed Project

1. SERB-Young Scientist Award. As Principal Investigator. 2016-2019. Department of Science & Technology, Gol.

Professional Membership

Life Member: Indian Immunological Society (membership# 394/11/14).

Editorial responsibility

1. Editor of 'Th9 cells-Methods and Protocols' of the book series Methods in Molecular Biology, Springer. 2017.
2. Topic Editor of 'T Cell Differentiation and Function in Tissue Inflammation' to be published in Frontiers in Immunology.
3. Editor of book entitled 'Jak-STAT signaling in diseases' to be published by CRC Press, Taylor & Francis Group in 2020.

Professional Service:

Journals: Ad-hoc reviewer

Journal of Immunology

Cell Communication and Signaling

Laboratory Investigation

Mediators of Inflammation

Helicobacter

Biological Chemistry

Atherosclerosis

Human Immunology

DNA and Cell Biology

Tuberculosis

Digestive Diseases and Sciences

Journal of Molecular Medicine

International Reviews in Immunology

Frontiers in Molecular Neuroscience

Molecular Medicine

Invited talks

1. New Horizons in Biotechnology 2019: NHBT 2019 on September 21, 2019 at Haldia Institute of Technology, West Bengal.
2. 45th Annual Meeting of Indian Immunology Society on November 1-3, 2018 at THSTI, Faridabad.
3. CME:IMMUNOLOGY under the aegis of Indian Immunology Society on August 8-9, 2014 at Nirma University, Ahmedabad.
4. World Immunology Day under the aegis of Indian Immunology Society on April 28, 2016 at Indian Institute of Advanced Research, Gandhinagar.