

## ***Curriculum vitae of Chirantan Debnath***

**Position:** PhD student at the Department for Biomedical Research.

**Gender:** Male

**Nationality:** Indian

**Address:** University for Continuing Education

Dr.-Karl-Dorrek-Strasse 30 , 3500, Krems

**Date of birth:** 09/05/1990

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## **Work Experience**

### **Ghent University, Belgium (2019-2024)**

- Generation, isolation, and characterization of Nanobody able to cross the blood-choroid plexus barrier.
- Efficient detection of extracellular vesicles (EVs) using tetraspanin-specific nanobody.
- Effect of anti-transthyretin nanobody in Lewis lung cell carcinoma.
- Exposure to organoid culture and microfluidics-based chips (organ-on-a-chip).

### **Translational Health Science and Technology Institute (THSTI), India & University of Queensland (UQCCR), Australia (2015-2019)**

- Role of cellular signaling pathways in the effector functions of neonate (cord blood) & adult human naive (CD4+ CD45RA+ CD25-) T-Cells.
- Gene and molecular target identification for diagnosis and prognosis of pediatric B-cell acute lymphoblastic leukemia.
- Profiling of placental physiologic signature during various trimesters of pregnancy in maternal liquid biopsy to understand adverse pregnancy outcomes (biomarker discovery for early prediction of preterm birth).

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## **Education and Training**

### **Master of Science in Applied Microbiology (2012-2014)**

- **Institute:** Dr. H.S. Gour Central University, Madhya Pradesh, India
- **Result:** CGPA 8.81/9
- **Thesis:** Cloning, Purification, and Functional Activity of Glutathione S-Transferase

### **Bachelor of Science in Medical Laboratory Technology (Paramedical) (2008-2012)**

- **Institute:** Mizoram Central University, Aizawl, india
- **Result:** Distinction (University Gold Medal)

## Trainings:

- Advanced training in biopanning, VUB Brussels (2023)
  - How to Manage a Project, VIB (2022)
  - Biomedical Research Ethics, VIB (2021)
  - Recombinant Protein Expression, VIB (2021)
  - Ingenuity Pathway Analysis, UGhent (2021)
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## Skills

- **Nanobody Research:** Generation, screening and application
  - **Cell & Tissue Culture:** Including primary cells
  - **T-cell Biology:** Isolation of PBMC, sorting T-cells, induction and profiling
  - **Molecular Biology Techniques:** Gene synthesis (GeneArt, Thermo)
  - **EV Research:** Isolation (centrifugation, density, SEC) and characterization
  - **Assays:** PCR, qPCR, ELISAs, cytotoxic assays, drug biodistribution
  - **Imaging:** Confocal and fluorescence microscopy
  - **Flow Cytometry, Immunocytochemistry, Histochemistry**
  - **Animal Handling & Dissection:** FELASA B certification
  - **Good Laboratory & Clinical Practice (GLP & GCP):** Trained at VIB
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## Publications

1. Menon, R., Debnath, C., Lai, A., Guanzon, D., Bhatnagar, S., et al. "Circulating Exosomal miRNA Profile During Term and Preterm Birth Pregnancies: A Longitudinal Study" (Journal of Endocrinology). DOI: 10.1210/en.2018-00836
  2. Menon, R., Debnath, C., Lai, A., Guanzon, D., et al. "Protein Profile Changes in Circulating Placental Extracellular Vesicles in Term and Preterm Births: A Longitudinal Study" (Journal of Endocrinology). DOI: 10.1210/endo/bqaa009
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## Awards and Certifications

- Bill & Melinda Gates Foundation Grant for Training (University of Queensland) (2017)
- National Eligibility Test (NET) – All India Rank 77 (2016)
- Graduate Aptitude Test (GATE) – All India Rank 479 (2015)

- University Gold Medallist (Paramedical)
  - IELTS Academic (2018, IDP IELTS Australia)
  - Laboratory Animal Science Certification (Ghent University)
  - Scientific Writing and Oral Presentation (Ghent University)
  - Advanced Academic Writing (Ghent University)
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### Languages

- **English:** Fluent
  - **Hindi:** Fluent
  - **Bengali:** Fluent
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### Volunteering and Memberships

- Member, Let's Save Food (Ghent, Belgium)
  - Member, Red Cross Society (India & Belgium)
  - Member, Save Soil Campaign (Global)
  - Member, Akshaya Patra Foundation (India) – Supporting Food & Education for Children
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### References

#### **Dr. Carlos Salomon Gallo**

Professor, University of Queensland Centre for Clinical Research, Brisbane, Australia

Email: c.salomongallo@uq.edu.au

#### **Dr. Roosmarijn Vandenbroucke**

Professor, VIB-UGent Center for Inflammation Research, Ghent, Belgium

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