

Curriculum Vitae

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CURRENT POSITION:

Assistant Professor
Department of Biochemistry and Microbiology
North South University
Bashundhara, Dhaka 1229.

ACADEMIC QUALIFICATIONS

- **Doctor of Philosophy (PhD) in Immunology, Oct 2009 to Mar 2014**
Department of Immunology and Parasitology,
Institute of Health Biosciences,
University of Tokushima, Japan
- **Master of Science in Biochemistry & Molecular Biology, 2008**
University of Dhaka (DU), Bangladesh
Result: 1st Class
- **Bachelor of Science in Biochemistry & Molecular Biology, 2006**
University of Dhaka (DU), Bangladesh
Result: 1st Class

ACADEMIC AWARDS & FELLOWSHIP

- Young Investigator Award from University of Tokushima, Japan, 2013.
- Government of Japan (Monbu-Kagakusho) MEXT fellowship for carrying out doctoral study, 2009.
- Dean's award from University of Dhaka for excellent academic records during Bachelor in Biochemistry and Molecular Biology program, 2007.

PREVIOUS EMPLOYMENT EXPERIENCE:

Postdoctoral Research Officer (*May 2014 to December 2016*)

The University of Queensland Diamantina Institute,
Translational Research Institute,
The University of Queensland
Brisbane, Australia.

Specific tasks:

- Study of the development of intestinal tissue resident memory T cells and their functions in Inflammatory Bowel Disease (IBD).
- In-depth characterization of pathogenic microbe induced inflammatory diseases using *in vivo* and *in vitro* techniques to understand pathogenesis at cellular and molecular level and their effects on the immune system.
- Study of gut microbiota and their interaction with host dendritic cells, innate lymphoid cells (ILC) and MAIT cell during gut disease development.
- Development and identification of potential diagnostic techniques and therapeutic targets in inflammatory and autoimmune diseases.

General duties:

- Plan and conduct experiments
- Prepare laboratory reports and scientific papers as well as present findings at national and international meetings and conferences
- Laboratory induction and technical training of new students
- Supervision of student project

Research Officer (*July 2009-September 2009*)

Department of Immunology
Bangladesh Institute of Research & Rehabilitation in Diabetes, Endocrine and Metabolic Disorders (BIRDEM), Dhaka, Bangladesh.

Research Fellow (*June 2008-June 2009*),

Department of Immunology
Bangladesh Institute of Research & Rehabilitation in Diabetes, Endocrine and Metabolic Disorders (BIRDEM), Dhaka, Bangladesh.

TEACHING AND STUDENT SUPERVISION EXPERIENCE

- Course design and instruction: Advance Immunology course, University of Queensland Diamantina Institute, Brisbane, 2014
- Research supervision:
 - Master's student thesis supervision at University of Queensland Diamantina Institute, 2015
 - Undergraduate students (number of students:03) research project supervision at University of Queensland Diamantina Institute, 2014-2016

PUBLICATIONS

1. **Zaied Ahmed Bhuyan***, T. Kurihara*, H. Arimochi*, H. Tsumura, M. Ito, Y. Ito, Y. Maekawa, K. Yasutomo. CD98 heavy chain is a potent positive regulator of CD4⁺ T cell proliferation and interferon- γ production in vivo. *Plos One* 2015 Oct 7; 10(10) (*Equal contribution).
2. **Zaied Ahmed Bhuyan**, M. Asanoma, A. Iwata, C. Ishifune, Y. Maekawa, K. Yasutomo. Abrogation of Rbpj attenuates autoimmune uveoretinitis by inhibiting IL-22 producing CD4⁺ T cells. *Plos One* 2014 Feb 28;9(2).
3. **Zaied Ahmed Bhuyan**, H. Arimochi, J. Nishida, K. Kataoka, T. Kurihara, C. Ishifune, H. Tsumura, M. Ito, A. Kitamura, K. Yasutomo. CD98hc regulates the development of experimental colitis by controlling effector and regulatory CD4⁺ T cells. *Biochemical and Biophysical Research Communications* 2014 Feb 21;444(4):628-33.
4. **Zaied Ahmed Bhuyan**, B. Rokeya, N. Masum, S. Hossain, I. Mahmud. Anti-diabetic effect of *Syzygium Cumini* L. seed on type 2 diabetic rats. *Dhaka University Journal of Biological Sciences* 2010; 19(2): 157-164.

MANUSCRIPT IN PREPARATION

1. **Zaied Ahmed Bhuyan**, Linda Rehaume, Ali Baradaran, Muralidhara Rao Maradana and Ranjeny Thomas. Aberrant development of tissue resident memory T cells in SKG mice.
2. **Zaied Ahmed Bhuyan**, Athan Baillet, Charles Armitage, Linda Rehaume, Kenneth Beagley and Ranjeny Thomas. Increased susceptibility of SKG mice to *Chlamydia muridarum* induced oviduct inflammation is associated with defective control of Chlamydia load.

CONFERENCE PRESENTATION

- Oral presentation as **invited speaker** at “Immunoregulation for treatment of disease” conference, Queensland, Australia, June 2015.
- Poster presentation in Australasian Society of Immunology (ASI) Annual Scientific meeting at Wollongong, NSW, Australia, December 2014.
- Oral presentation in 6th ACA (Autoimmunity Congress Asia) at Hong Kong, November 2013.
- Oral presentation in Tokushima Bioscience Retreat at Shodoshima, Japan, September 2013.
- Poster presentation at Hannover-Tokushima Research Communication at University of Tokushima, Japan, August 2013.
- Oral presentation in Shikoku Immunology Conference at Kagawa, Japan, June 2013.

TECHNICAL EXPERTISE

BIOCHEMICAL AND MOLECULAR

PCR, Real-time PCR, Western Blotting, Southern Blotting, Plasmid cloning

IMMUNOLOGY

Skilled in various flow cytometry techniques using the FACS Calibur, FACS Array, Gallios; Intracellular cytokine staining, in vivo immunization, Bead based cytokine quantification assays (CBA), cytokine and antibody ELISAs, cell culture and maintenance, Confocal microscopy.

HISTOLOGY

Fluorescent immunohistochemistry, tissue sectioning, histological staining techniques including H&E and PAS

ANIMAL AND DISEASE MODELS

Extensive experience in laboratory animal research techniques and the use of infection and disease models in mice.

Parasite and infectious microbes used include: *Leishmania major*, *Chlamydia Muridarum*, *Parabacteroides Distasonis*, *Bacteroides Vulgatus*

Handling of disease models include acute and chronic Graft versus host disease (GvHd), T cell induced colitis, β -glucan (curdlan) induced ileitis, curdlan induced Psoriasis, Experimental Autoimmune Uveitis (EAU), Collagen induced Arthritis, Proteoglycan induced Arthritis

Experience in general animal (mouse) husbandry, managing the breeding of numerous Transgenic, Germ Free (GF) and Knock Out mouse strains.

WORKSHOP AND TRAINING

- Laboratory Science and Training course
- Small animal handling workshop
- Radiation Safety training
- IVIS (in vivo imaging system) training
- Biological safety workshop
- Microdissection and fluorescent microscope training
- BD Flow cytometry course - Basic Flow Cytometry
- Beckman Coulter flow cytometer training
- Occupational health and safety training

REFERENCES

1. Ranjeny Thomas, M.D.
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Head, Immunology programme
The University of Queensland Diamantina Institute,
Translational Research Institute,
Brisbane, Australia.
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3. Koji Yasutomo, M.D., Ph.D.
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