

NATTAPHONG RATTANA VIROTKUL

Curriculum Vitae

Lecturer and Researcher at Chakri Naruebodindra Medical Institute (CNMI) Faculty of Medicine Ramathibodi Hospital Mahidol University Samutprakan Thailand 10540

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ACADEMIC AND RESEARCH EXPERIENCE

**Chakri Naruebodindra Medical Institute (CNMI), Faculty of Medicine
Ramathibodi Hospital, Mahidol University**

February 2020 – Now

PhD Research

The Institute of Genetics and Molecular Medicine (University of Edinburgh) July 2016 – December 2019

Worked on the paracrine transmission of senescence at the single-cell level using flow cytometry and confocal microscopy techniques.

Studied molecular ageing in progeroid syndromes focusing on single-cell heterogeneity in progeria phenotypes.

Babraham Institute (University of Cambridge)

October 2015 – July 2016

Worked on single-cell heterogeneity in oncogene-induced senescence and the involvement of DNA damage.

Wellcome Trust Sanger Institute (University of Cambridge)

October 2014-September 2015

Rotation projects on (1) Rare genetic variants in schizophrenia. (2) The mechanism of mammalian fertilisation focusing on sperm-egg recognition. (3) Colon cancer organoid models. (4) Genome-wide loss-of-function genetic screens in IPS-derived macrophages.

PUBLICATION

1. Rattanavirotkul N, Kirschner K, Chandra T. Induction and transmission of oncogene-induced senescence. *Cellular and Molecular Life Sciences : CMLS*. 2020 Sep. DOI: 10.1007/s00018-020-03638-0. Kirschner K, Rattanavirotkul N, Quince MF, Chandra T. Functional heterogeneity in senescence. *Biochem Soc Trans*. 2020;48(3):765-773. doi:10.1042/BST20190109
2. Teo YV, Rattanavirotkul N, Olova N, et al. Notch Signaling Mediates Secondary Senescence. *Cell Rep*. 2019;27(4):997-1007.e5. **(Winning the Best Poster Prize from the EMBO Cellular Signalling and Cancer conference, Cavtat 2018)** [https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3259140].
3. Chiang M, Michieletto D, Brackley CA, et al. Polymer Modeling Predicts Chromosome Reorganization in Senescence. *Cell Rep*. 2019;28(12):3212-3223.e6.
4. Regan JC, Khericha M, Dobson AJ, Bolukbasi E, Rattanavirotkul N, Partridge L. Sex difference in pathology of the ageing gut mediates the greater response of female lifespan to dietary restriction. *Elife*. 2016;5:e10956 doi: [10.7554/eLife.10956](https://doi.org/10.7554/eLife.10956)

EDUCATION

PhD Genetics and Precision Medicine, University of Edinburgh – July 2016 – Dec 2019

MRes Biology of Ageing and Age-related Diseases, UCL – Distinction Sep 2013 – Sep 2014

BSc Biological sciences, University College London – First Class Honours Sep 2010 – Jun 2013

Lilian Clarke prize (most promising advanced student) (2013). The Dean's List award for excellent academic achievement (2013). Society of Biology Top Student Award (2013). Nominated for the Faculty Medal award (2013), Dean's List for exceptional standard of work and examination performance during the session (UCL) (2012) (1st place among BSc. Biological Science students). Robert Hooke Prize for exceptional standard of work and examination performance during the session (UCL) (2011), (1st place among BSc. Biological Science students).

KEY SKILLS AND COMPETENCIES

Techniques: molecular biology, cell culture and genetic engineering. Oncology imaging, confocal microscopy, immunohistological staining, flow cytometry and programming (R, Pearl and HTML) skills.

Proficient in both English and Thai, and Beginner level Mandarin.

Competent culinary skills, ice-cream master, badminton, photography and multimedia software.

REFERENCES

Dr Tamir Chandra: MRC Institute of Genetics and Molecular Medicine, email: tamir.chandra@igmm.ed.ac.uk

Prof Chris Ponting: MRC Institute of Genetics and Molecular Medicine, email: chris.ponting@igmm.ed.ac.uk