UCDAVIS HEALTH | SCHOOL OF MEDICINE

**Medical Microbiology & Immunology**
MMI 291 Seminar Series
Emerging Challenges in Microbiology and Immunology

# MMI 291 Seminar Series

## Current Theme: Interdisciplinary Research
Winter Quarter 2020 – CRN 65452 **Friday Seminar – 12:10-1 p.m.**

## "Systems Biological Analysis of the Correlates and Mechanisms of Vaccination Induced Protection"

### Research

Bali Pulendran is the Violetta L. Horton Professor at the Stanford University School of Medicine, and a member of the Institute for Immunology, Transplantation and Infection, and the Departments of Pathology and Microbiology & Immunology at Stanford University. He is also an adjunct professor at Emory University and the Yerkes National Primate Center, and director of the NIH Center for Systems Vaccinology, at Emory University in Atlanta. He received his undergraduate degree in the Natural Sciences Tripos from Queens' College, Cambridge University, and his Ph.D., from the Walter & Eliza Hall Institute in Melbourne, Australia, under the supervision of Sir Gustav Nossal. He then did his post-doctoral work at Immunex Corporation in Seattle. Dr. Pulendran's research is focused on understanding the mechanisms by which the innate immune system regulates adaptive immunity and harnessing such mechanisms in the design of novel vaccines. More recently, his laboratory pioneered the use of systems biological approaches to predicting the efficacy of vaccines and deciphering new molecular correlates of protection against infectious diseases. Dr. Pulendran's research is published in front line journals such as *Nature, Science, Cell, Nature Medicine, and Nature Immunology*. Furthermore, Dr. Pulendran is the recipient of numerous grants from the National Institutes of Health, and from The Bill and Melinda Gates Foundation, serves on many editorial boards, and is the recipient of two concurrent MERIT awards from the National Institutes of Health. Dr. Pulendran serves on many advisory boards including that of Keystone Symposia and on the Immunology Network of GSK. He is listed on Thomson Reuter's list of Highly Cited Researchers (ranked amongst top 1% of researchers most cited for their subject during the past decade).

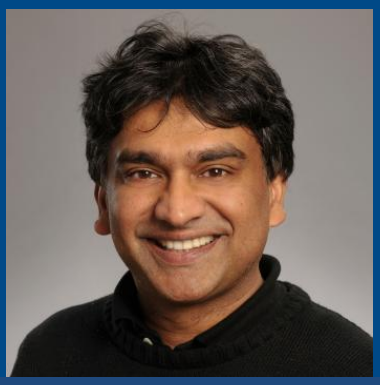
### Publications


Hagan T, Cortese M, Rouphael N, Boudreau C, Linde C, Maddur MS, Das J, Wang H, Guthmiller J, Zheng NY, Huang M, Uphadhyay AA, Gardinassi L, Petitdemange C, McCullough MP, Johnson SJ, Gill K, Cervasi B, Zou J, Bretin A, Hahn M, Gewirtz AT, Bosinger SE, Wilson PC, Li S, Alter G, Khurana S, Golding H, Pulendran B. Antibiotics-Driven Gut Microbiome Perturbation Alters Immunity to Vaccines in Humans. *Cell.* 2019 Sep 5;178(6):1313-1328.

Querec TD, Akondy RS, Lee EK, Cao W, Nakaya HI, Teuwen D, Pirani A, Gernert K, Kennedy K, Wu H, Bennouna S, Oluoch H, Miller J, Vencio RZ, Mulligan M, Aderem A, Ahmed R, **Pulendran B**. Systems biology approach predicts immunogenicity of the yellow fever vaccine in humans. *Nat Immunol.* 2009. 10(1):116-25. *Science.* 2017 Sep 8;357(6355):1014-1021.

Sinclair C, Bommakanti G, Gardinassi L, Loebbermann J, Johnson MJ, Hakimpour P, Hagan T, Benitez L, Todor A, Machiah D, Oriss T, Ray A, Bosinger S, Ravindran R, Li S, **Pulendran B**. mTOR regulates the metabolic adaptation of APCs in the lung and controls the outcome of allergic inflammation. *Science.* 2017 Sep 8;357(6355):1014-1021


# January 31



**Bali Pulendran, Ph.D.**

**Violetta L. Horton Professor, Institute for Immunity, Transplantation and Infection, Department of Pathology, Department of Microbiology and Immunology, Fellow at ChEM-H (Chemistry, Engineering and Medicine for Human Health), Stanford University School of Medicine, Stanford University**

**January 31, 2020**
**12:10 – 1 p.m.**
**GBSF 1005**

Medical Microbiology & Immunology
School of Medicine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We hope to see you there!