



Institut Pasteur

Innate Immunity

massive open online course

[Register here](#)

Registration ends:
June 11 2017

Classes start:
May 2 2017

Estimated effort:
2.5 hours/week

Classes end:
June 11 2017

Course syllabus

Week 1: Cellular players - part 1

Macrophages
Neutrophils
NK cells
NKT cells
Innate lymphoid cells

Week 2: Cellular players - part 2

T γ/δ lymphocytes
Th17 lymphocytes
Treg lymphocytes
Dendritic cells
Mast cells

Week 3: Molecular players - part 1

PAMPs
DAMPs (alarmins)
PRRs : TLR
PRRs : NLR
PRRs : RLR

Week 4: Molecular players - part 2

The complement system
Cytokines
Chemokines
Anti-microbial peptides

Week 5: Host-pathogen interactions

Anti-infectious role of cytokines
Innate immunity and bacterial infection
Innate immunity and viral infection
Innate immunity and parasitic infection
Innate immunity against fungal infection
Microbial strategies against the immune system
Mucosal innate immunity

Week 6: Regulation of innate immune response

Sepsis/ an overwhelmed innate immune response
Influence of microbiota on innate immunity
Regulation of the immune system by the nervous system
Links between innate and adaptive immunity
Evolutionary genetics of the human innate immune system
Trained innate immunity