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Prof. Chiche is a physician-scientist working in the Medical ICU of Cochin Hospital in Paris. His clinical interest lies in the field of acute respiratory failure, mechanical ventilation and sepsis. He has also developed a vision for health informatics and big data, organization, delivery and teaching of intensive care. He graduated as MD in Paris, studied in Liège for 4 years (Belgium), and obtained a PhD after a 3-year research fellowship at the Massachusetts General Hospital (Harvard Medical School) in Boston. Prof. Chiche holds an appointment as Research Director at the Cochin Institute (INSERM U1016) where he develops an independent research program spanning various aspects of the biology of sepsis, innate immunity and variability of the inflammatory response.

He has written more than 140 papers in peer-reviewed scientific journals and is a regular reviewer for major international journals. He has extensive experience as an investigator and DSMB member on major international studies in ARDS, mechanical ventilation, sepsis, sedation and cardiac arrest management. Prof. Chiche is a Past President and Senate Member of the European Society of Intensive Care Medicine (ESICM). He has served as a Member of the Executive Committee of the Surviving Sepsis Campaign, has been President of the European Board of Intensive Care Medicine (2012-2017) and of the Life-Priority Fund (2015-2017). He is member of the Steering Committee of ISARIC. He is a founding member and the President of the 101 Fund, which raises funds to improve intensive care worldwide through innovative research and education projects and cutting-edge technology, including big data analytics tools.

# **Topics for conferences.**

# A. Main topics covered

- ARDS
- Mechanical ventilation
- Sepsis & severe infections: clinical topics
- Pathophysiology of sepsis & sepsis-induced immune suppression
- Genetic susceptibility to critical illness
- Systemic diseases in the ICU
- ICU organization
- ICU monitoring
- Big data analytics
- Computer-information management systems

## **B.** Proposals for lecture titles

#### **RESPIRATORY FAILURE TOPICS**

#### ARDS

- Management of severe ARDS / hypoxemia
- Setting therapeutic goals for ARDS
- Ventilation of ARDS: avoiding clinical disasters
- ARDS therapy: personalized treatment or protocols?
- Ultra-protective ventilation in ARDS
- ECCO2R: State of the Art
- Severe ARDS: Prone position, ECMO or HFO
- HFO in severe ARDS: where do we stand?
- Is prone position evidenced-based?
- Lessons from the Lung-Safe study
- The hemodynamically unstable ventilated patient
- Adjunctive treatment for ARDS

## • Pneumonia & ARF etiologies

- Ventilator-associated pneumonia: revisiting risk factors
- TRALI: what you should know
- Community-acquired pneumonia: how to ventilate?
- Acute respiratory failure in the immunocompromised host

## Mechanical ventilation - general

- The art of weaning
- Ventilatory settings: respiratory system modeling
- New modes of mechanical ventilation
- Pressure-controlled or volume-controlled ventilation?
- Will all ventilation be automated?
- Decision support in ventilation. Harnessing data analytics

# Noninvasive ventilation & HFNO

- Noninvasive ventilation for hypoxemic respiratory failure
- Noninvasive ventilation: do & dont's
- Noninvasive ventilation & high-flow nasal oxygenation: game changers in ARDS?
- NIV for hypoxemic respiratory failure
- High-flow nasal oxygenation: hype or hope?

#### **SEPSIS - TRANSLATIONAL MEDICINE TOPICS**

# Sepsis – clinical topics

- Sepsis 3.0: what is in the new definition
- Sepsis 3 Year 3 And now?
- Surviving sepsis campaign guidelines: what's new?
- Should we follow the SSC guidelines?
- Sepsis biomarkers: where do we stand?
- Do we need bundles & guidelines in clinical practice?
- Early-goal directed therapy: what's left?
- My septic patient does not improve...what shall I do next?
- Management of invasive candidiasis
- Community-acquired pneumonia sub-phenotypes
- Community-acquired pneumonia: what drives phenotypes?
- Steroids for community-acquired pneumonia: not so fast!
- Management of community-acquired pneumonia
- Optimal duration of antimicrobial treatment
- Ventilator-associated pneumonia: understanding risk factors
- Sepsis: looking beyond survivals

#### Sepsis - translational medicine topics

- Immunomonitoring in the ICU
- Sepsis-induced immune dysfunction
- Immunoparalysis: can we define operational criteria?
- Biomarkers where do we stand?
- Precision medicine in sepsis
- Targeting sepsis with epigenetic-drugs
- TLR-signaling revisited
- Dendritic cells & Myeloid-Derived Suppressor Cells in Sepsis
- Pathogens strike back: escaping the immune system
- Innate immunity in the lung
- Omics technologies in the ICU
- Proteomics in critical care
- Omics approach to biomarker identification
- Genetic predisposition to sepsis
- Genetic predisposition to ARDS

- Genetic predisposition to pneumonia
- Dissecting genetic predisposition to critical illness: the tools
- Genetic Association Studies: study design matters
- Pharmacogenomics in the ICU: an update
- Pharmacogenomics for dummies
- Can we overcome barriers to translational research?
- Immuno-modulation strategies in sepsis: why can't we get it to work?
- Sepsis outcome studies: did we learn anything?

## ICU ORGANISATION / MISCELLANEOUS TOPICS

- Is intensive care the same the world over?
- Computer-information management systems
- A plea for ICU-specific electronic health records
- Big data analytics to improve outcome
- Big data analytics: towards data-driven decisions
- Big data analytics to foster patient safety in intensive care
- From clinical decision to predictive analytics
- Transfusion thresholds in the ICU
- Management of post-cardiac arrest patients
- The ICU patient with systemic disease
- Macrophage activation syndrome
- Metabolic monitoring
- It looks like septic shock but...
- The future of monitoring
- We need to stop ICU clinical research bashing
- Big data in the ICU what can we expect?
- The hospital of the future
- Implementing protocols in your ICU
- Building bridges to improve safety
- Evidence-based medicine: are we doing enough?
- Can ICU expenses be brought under control?
- Inspiring the next generation of intensivists
- Mentoring millennials in the ICU
- SATISFACTION 101: redefining the ICU patient safety toolbox