The CEPR develops a continuum of research from the understanding of the mechanisms of respiratory infection and inflammation up to the development of drug delivery for their treatment. This includes molecular and technological studies and, preclinical and clinical investigations. The CEPR collaborates with academic and private partners (from startup to big pharma companies).

**RESEARCH TOPICS**
- Pathophysiology of respiratory infections
- Proteolytic enzymes and their pharmacological targeting in lung diseases
- Pharmacology of inhaled pharmaceuticals
- Biology of innate T cells & Lung immunity (Infection and autoimmunity)

**EQUIPMENT AND TECHNOLOGY**
- Fluorescent and flow cell microscopes
- Static and Dynamic Light Scattering (SLS/DLS) equipment
- Spectrophotometers, spectrofluorometers
- Nanodrop, osmometer, tensiometer, densitometer
- HPLC equipments
- Flow cytometer (7 & 13 colors)
- In vivo imager (Lumina XR)
- Gamma camera
- Chamber for aerosol exposure (Vitrocell)
- «Smoking inhalation unit» for rodents
- Automated cellular imaging system (Incucyte)
- McIlwain tissue chopper
- GentleMAcs tissue choper

**INTERNATIONAL COOPERATIONS**
**Universities of:** Barcelone (ES); Belfast (UK); Melbourne (AU); Vancouver and Toronto (CA); Gdansk (PL); Louvain, Berlin and Ghent (BE); Munich and Braunschweig (DE); Leiden (NL); Galway (IR)

**ACADEMIC PARTNERSHIP**
CHRU de Tours; LabEx MabiImprove (Tours-Montpellier); UMR INSERM 1253 (Tours); INRAe, UMR1282 ISP (Nouzilly); CBM CNRS UPR 4301 (Orléans); CEA (Fontenay aux Roses); Institut Pasteur (Paris et Lille); UMR7257 (Marseille); UMR7275 (Sophia Antipolis); ICOA CNRS UMR 7311 (Orléans), BioCis, Institut Polytechnique (Paris), CIRI (Lyon), AFMB (Marseille)

**INDUSTRIAL COLLABORATIONS**
Diffusion Technique Française (DTF-aerodrug), www.aerodrug.com; Theradiag, Aerogen; LVMH, Nemera; Chiesi, Aptar Pharma, CSL Behring, Fisher & Paykel

https://cepr.inserm.univ-tours.fr