



**i2B** **iNFLAMMATION**  
**iMMUNOPATHOLOGY**  
**BIOThERAPY**  
UNIVERSITY HOSPITAL DEPARTMENT - DHU

**The i2B Department has 32 medical and research teams working together to improve the management of inflammatory and autoimmune diseases.**

**COORDINATORS : Prof. Serge Anselem & Prof. David Klatzmann**

TENON - SAINT-ANTOINE - ARMAND-TROUSSEAU - PITIÉ-SALPÊTRIÈRE - INRA JOUY-EN-JOSAS

# CONTEXT

**C**hronic inflammation, a condition present in various diseases including those with an immune component, is an important cause of morbidity/mortality in the developed world.

Recent advances on the pathophysiology of autoinflammatory/autoimmune diseases have led to a re-examination of their nosology. It now appears that autoinflammatory and autoimmune diseases do not represent two distinct categories of disorders. Rather, they

form a disease continuum ranging from pure autoinflammatory disorders to pure autoimmune diseases, encompassing a large panel of inflammatory diseases with some autoimmune component, and vice versa. A wide range of disorders fall into this disease category. These are rare or common disorders, whose management requires an integrated approach in which clinicians from internal medicine or medical specialties and research teams collaborate closely in translational research programs.

## RATIONALE

The rationale of i2B is based on :

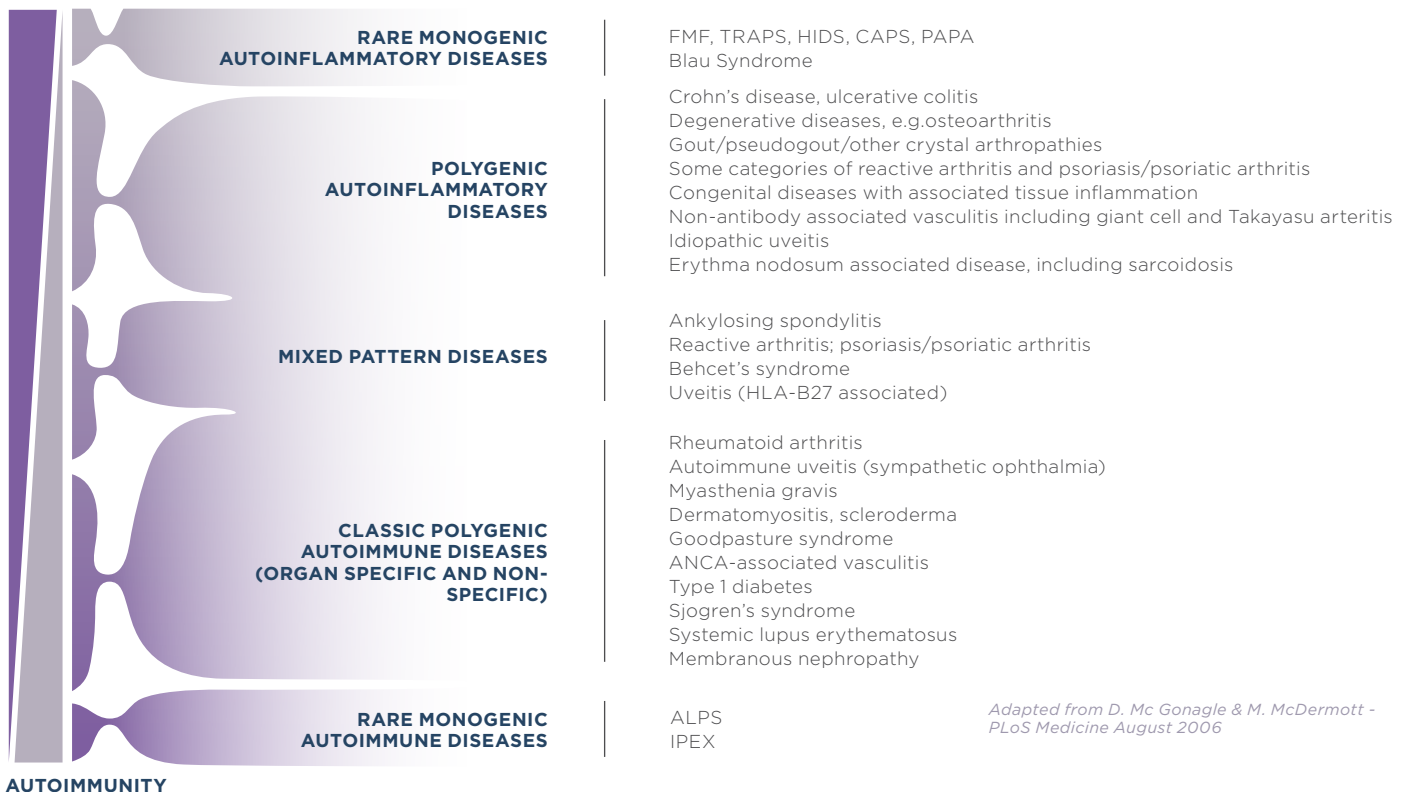
- The concept of autoinflammatory/autoimmune disease continuum (AADC)
- The expected benefits of managing rare disorders together with common diseases
- The importance of transition from pediatric to adult healthcare departments

## OBJECTIVE

Our general objective is to study and improve management of inflammatory and autoimmune diseases by integrating translational information.

# i2B disease CONTINUUM

### AUTOINFLAMMATION



*Adapted from D. Mc Gonagle & M. McDermott - PLoS Medicine August 2006*

# STRATEGY

i2B is a collegial network to strengthen the links between patient care, research, and teaching in the field of autoimmune/autoinflammatory diseases. For this purpose, i2B projects are structured in four complementary workpackages.



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## 1

Patient Care, Cohorts, Deep phenotyping & Clinical trials

Cross-analyse phenomic data from cohorts of patients with selected inflammatory and autoimmune diseases.



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## 2

Basic and translational research

Identify new/common molecular pathways in several diseases and validate prognostic and diagnostic biomarkers.



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## 3

Translational medicine and biotherapy

Develop and evaluate biotherapies and novel therapeutic targets.



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## 4

Teaching and dissemination

Implement high-level teaching and training activities for healthcare professionals and patients.

# EXPECTED IMPACT

We aim to improve the classification, diagnosis, treatment and management of autoimmune/autoinflammatory diseases so as to offer a better quality of life to patients. High-level teaching and dissemination activities will spread knowledge and expertise in this cutting-edge field of medical science.

# i2B TEAMS

Clinical Teams		
Team Leader	Department	Hospital
F. Berenbaum	Rheumatology	Saint-Antoine
L. Baud	Department of Physiology	Tenon
J. Cabane	Internal Medecine	Saint-Antoine
P. Cacoub	Internal Medecine 2	Pitié-Salpêtrière
J. Cadranel	Department of Pneumology and Intensive Care Medecine	Tenon
A. Clement	Pediatric Pneumology	Trousseau
J. Cosnes	Gastroenterology and Nutrition	Saint-Antoine
B. Fautrel	Rheumatology	Pitié-Salpêtrière
G. Gâteau	Internal Medecine	Tenon
P. Le Hoang	Ophthalmology	Pitié-Salpêtrière
S. Herson	Internal Medecine 1 and Integrated Gene Therapy Center	Pitié-Salpêtrière
M. Mayer	Neuropediatrics	Trousseau
P. Ronco	Nephrology and Dialysis	Tenon
E. Rondeau	Intensive care nephrology and Transplantation department	Tenon
T. Ulinski	Pediatric Nephrology	Trousseau

Clinical laboratory teams		
Team Leader	Department	Hospital
S. Amselem	Molecular Genetics Unit	Trousseau
I. Brocheriou	Department of Pathology	Tenon
J. Capeau	Department of Biochemistry	Tenon
D. Klatzmann	Clinical Investigation Center for Biotherapies (CIC-BTi)	Pitié-Salpêtrière
D. Klatzmann	Biotherapy Unit	Pitié-Salpêtrière
G. Trugnan	Platform for Peptidomic, Metabolomic and drug Measurements (Mass Spectrometry)	Saint-Antoine

Research teams		
Team Leader	Unit	Hospital
S. Amselem	Pathophysiology of Pediatric Genetic Diseases / UMRS 933 INSERM / UPMC	Trousseau
P. Aucouturier	Neuroimmunology / UMRS 938 INSERM / UPMC	Saint-Antoine
O. Benveniste	Inflamed muscle and Innovative Targeted Therapies / U974 / UM76, INSERM / UPMC	Pitié-Salpêtrière
F. Berenbaum	Metabolism and age-related joint diseases / UMRS 938/INSERM / UPMC	Saint-Antoine
C. Chatziantoniou	From Kidney Phenotypic Alterations to Novel Diagnostic Markers and Targets of Therapy of CKD / UMRS1155 INSERM / UPMC	Tenon
A. Clément	Pediatric Pneumology / UMRS 938 INSERM / UPMC	Trousseau
D. Klatzmann	Immunology-Immunopathology-Immunotherapy / UMR 7211 - UMRS 959 UPMC / INSERM / CNRS	Pitié-Salpêtrière
P. Langella	Commensal and Probiotics-Host Interactions Laboratory / UMR1319 Micalis INRA	INRA
P. Ronco	From rare to common kidney diseases, remodeling and repair / UMRS1155 INSERM / UPMC	Tenon
P. Seksik	Micro-organisms and Intestinal Physiopathology / ERL INSERM U1157 / UMR7203 UPMC / INSERM / CNRS / ENS	Saint-Antoine
A. Six	Immunology-Immunopathology-Immunotherapy / UMR 7211 - UMRS 959 UPMC / INSERM / CNRS	Pitié-Salpêtrière

# i2B CONSORTIUM

## Multidisciplinary and complementary teams of excellence

Within i2B, 21 medical teams and 11 research teams share and provide expertise in biological and clinical aspects of inflammation, immunology, genetics, microbiota and biotherapies. These teams are located in four university hospitals, (Pitié-Salpêtrière, Trousseau, Tenon and Saint-Antoine) linked to Pierre and Marie Curie University (UPMC), and one team is located at the Institut National de la Recherche Agronomique (INRA).

The complementary expertise of i2B teams covers the entire spectrum of the autoimmune/ autoinflammatory diseases. I2B has exclusive clinical resources comprising more than 25 cohorts and one Clinical Investigation Center specialized in biotherapies (CIC-BT). In addition, i2B collaborates closely with 5 National Reference Centers for Rare Diseases, the laboratory of excellence Transimmunom and 14 patient groups.



## COORDINATORS

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Hôpitaux  
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**TENON**

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