

# Who

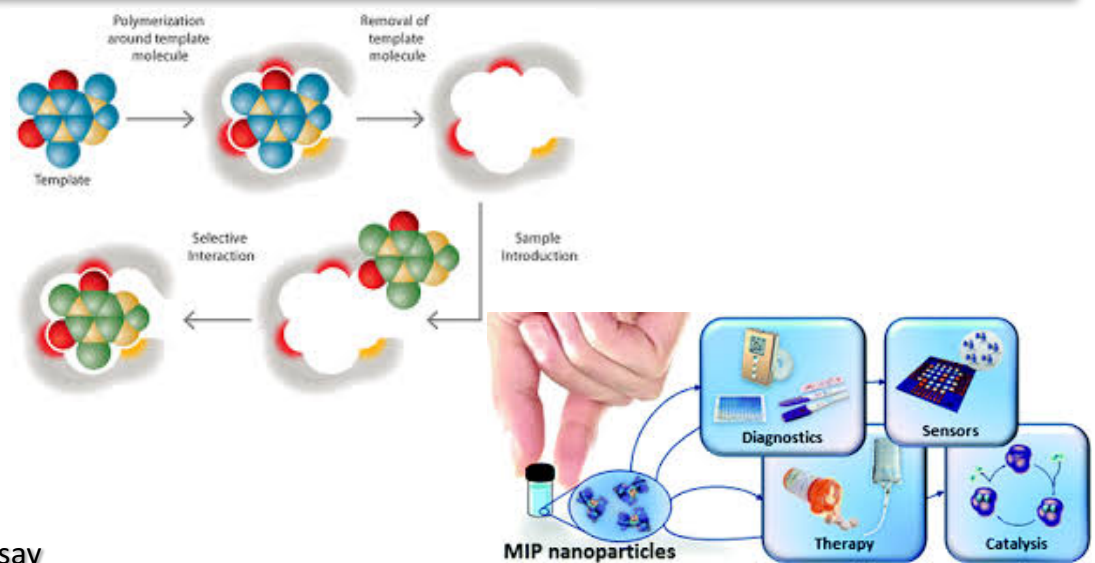
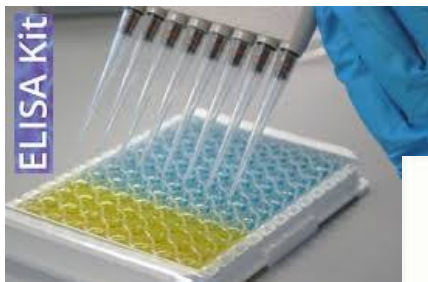
The Bioanalytical LAB group



Prof Claudio Baggiani  
Prof Laura Anfossi  
Prof Cristina Giovannoli  
2 PhD students  
1 post-doc  
4-8 undergraduate students

## Expertise & research interest:

- ✓ Design, preparation and characterization of immunoreagents and conventional/novel immunomaterials
- ✓ Immunoassay and LFIA development and validation
- ✓ Preparation of imprinted artificial receptors towards different target molecules
- ✓ Binding properties characterization of imprinted materials



# Where

The bioanalytical lab



Department of Chemistry  
Via P. Giuria 5



## Instruments & Techniques:

- Immunoassay equipment
- LFIA equipment
- HPLC and LPLC with Uv, DAD and fluorescence detectors
- HPLC/MS-MS (ESI-IT)
- Capillary Electrophoresis Systems



## Ongoing projects&collaborations:

- Private companies: Alhstrom spa, Euroclone spa, Laboratorio Derivati Organici, ProXentia srl
- Institutions: Dept «G. Ciamician» (Bologna), Queen's University (Belfast, UK), Dept of Veterinary Sciences (Torino), Dept of Medical Sciences (Torino)
- Fundings: Progetto di Ricerca di Ateneo (2015-2017): SERS Biosensing with Nanoporous functionalized Gold

# What

## Immunochemical methods

LFIA test development & validation:

- Point-of-care tests from the design to the prototype

Innovation in LFIA:

- Novel probes
- Multiplexing strategies

ELISA for specialised applications (food safety, veterinary, clinical diagnostics)

- Design and preparation of reagents, development, optimization, validation

## Biomimetic receptors

Preparation of MIPs in bulk, monolithic, core-shell or grafted thin-layer formats:

- imprinting of proteins for preparation of nanosized imprinted receptors

Development of target-selective analytical methods based on biomimetic artificial receptors:

- ELISA like-assay feasibility with synthetic receptors

Determination of thermodynamic and kinetic binding parameters for molecularly imprinted materials:

- Binding studies of new biomimetic materials

**Requirements:** mastering basic concepts of chemistry (analytical, organic, bio and physic chemistry), ability to organize /plan work and time, manual skills in a lab environment, curiosity and enthousiasm

Expected duration: 7-9 months

**Positions available (n/year): 3-4**