

# Jean-Patrick Francoia

## Education

- 2017–Today **Postdoctoral research assistant**, *University of Glasgow*, Scotland.  
3D printing applied to chemistry  
Supervisor: Prof. Leroy Cronin ([lee.cronin@glasgow.ac.uk](mailto:lee.cronin@glasgow.ac.uk))
- 2013–2016 **Ph. D.**, *Université de Montpellier*, France.  
Supramolecular chemistry, biological chemistry, sensors  
Supervisor: Dr Laurent Vial ([laurent.vial@univ-lyon1.fr](mailto:laurent.vial@univ-lyon1.fr))
- 2012–2013 **Master in chemistry, with honours**, *Lund University*, Sweden.

## Professional experience, teaching activities

- 2013–2016 **Teaching assistant**, *Université de Montpellier*, France.  
Laboratories in organic and general chemistry for undergraduate students (ca. 200 hours)
- Nov. 2014 **Direct mentor**, *Université de Montpellier*, France.  
Supervision of a master student (Lena Morin), for 5 weeks
- 2012–2013 **Training period**, *Lund University*, Sweden.  
Organic synthesis, catalysis  
Supervisor: Prof. Kenneth Wärnmark ([Kenneth.Warnmark@chem.lu.se](mailto:Kenneth.Warnmark@chem.lu.se))
- Apr. 2010–  
June 2010 **Training period**, *University of Whitewater*, Wisconsin, United States.  
Organic synthesis, chemical biology  
Supervisor: Prof. Catherine Chan ([chanc@uww.edu](mailto:chanc@uww.edu))

## Chemistry skills

- Synthesis SPPS, multistep organic synthesis
- Analysis Fluorescence spectroscopy, HPLC, NMR, ICP-OES
- Modeling Amber, Gaussian, Spartan, VMD
- Microbiology Culture of bacteria and model plants
- Other 3D printing, CAD (Onshape, OpenSCAD), electronics (Arduino)

## Computer skills

- 2010 **C2i – "Certificat Informatique et Internet"**.  
Developer of ChemBrows ([www.chembrows.com](http://www.chembrows.com)).  
Deep knowledge of Python, LaTeX, HTML, CSS, SQL, Bash, git. Basis with C/C++ and PHP.  
contributor to scikit-learn. Daily usage of GNU/Linux

## Publications

- Digitization of multistep organic synthesis in reactionware for on-demand pharmaceuticals** P. J. Kitson, G. Marie, J.-P. Francoia, S. S. Zaleskiy, R. C. Sigerson, J. S. Mathieson and L. Cronin, *Science*, 2018, **359**, 314
- Everything you always wanted to know about poly-*L*-lysine dendrigrafts (but were afraid to ask)** J.-P. Francoia and L. Vial, *Chem. Eur. J.*, 2017, DOI : 10.1002/chem.201704147
- Digitizing Poly-*L*-Lysine Dendrigrafts: from Experimental Data to Molecular Dynamics Simulations** J.-P. Francoia, J.-C Rossi, G. Monard and L. Vial, *J. Chem. Inf. Model.*, 2017, **57**, 2173 - [citation : 1](#)

6. **Chirality Sensing and Discrimination of Lysine Derivatives in Physiological Conditions with a Dyn[4]arene** L. Vial, M. Dumartin, M. Donnier-Maréchal, F. Perret, J.-P. Francoia, J. Leclaire, *Chem. Commun.*, 2016, **52**, 14219
5. **ChemBrows: An Open-Source Application Software To Keep Up to Date with the Current Literature** J.-P. Francoia and L. Vial, *J. Chem. Educ.*, 2016, **93**, 1137 - [open access](#), [citation : 1](#)
4. **A KISS (Keep It Simple, Sensor) Array for Glycosaminoglycans** J.-P. Francoia and L. Vial, *Chem. Commun.*, 2015, **51**, 17544 - [citations : 3](#)
3. **Monitoring Clinical Levels of Heparin in Human Blood Samples with an Indicator-Displacement Assay** J.-P. Francoia, R. Pascal, and L. Vial, *Chem. Commun.*, 2015, **51**, 1953 - [citations : 11](#)
2. **A Double Conformationally Restricted Dynamic Supramolecular System for the Substrate-Selective Epoxidation of Olefins—A Comparative Study on the Influence of Preorganization** E. Lindbäck, S. Cherraben, J.-P. Francoia, E. Sheibani, B. Lukowski, A. Proñ, H. Norouzi-Arasi, K. Månsson, P. Bujalowski, A. Cederbalk, T. H. Pham, T. Wixe, S. Dawaigher and K. Wärnmark, *ChemCatChem*, 2015, **7**, 333 - [citation : 1](#)
1. **Multi-Technique Characterization of Poly-L-lysine Dendrigrfts–Cu(II) Complexes for Biocatalysis** J.-C. Rossi, B. Maret, K. Vidot, J.-P. Francoia, M. Cangiotti, S. Lucchi, C. Coppola, and M. F. Ottaviani, *Macromol. Biosci.*, 2015, **15**, 275 - [citations : 6](#)

## Conferences

Slides and posters available at <https://github.com/JPFrancoia/PostersSlides>

6. **JMJC 2016 (Journées Méditerranéennes des Jeunes Chercheurs)**, Nice, France.  
Poster presentation
5. **MSMLG 2016 (Molecular Sensors and Molecular Logic Gates)**, Bath, United Kingdom.  
Oral presentation and poster presentation
4. **JMJC 2015 (Journées Méditerranéennes des Jeunes Chercheurs)**, Montpellier, France.  
Oral presentation
3. **MeMoSim 2015 (Modeling Methods and multiscale Simulations)**, Lyon, France.  
Poster presentation
2. **Balard Chemistry Conferences 2014**, La Grande Motte, France.  
Poster presentation
1. **JJC 2014 (Journées des Jeunes Chercheurs)**, Montpellier, France.  
Poster presentation