

Frédéric TARAN, Ph.D.

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49 years old

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EDUCATION/ PROFESSIONAL EXPERIENCE

- 2015 to present** Head of the Chemistry Department (50 persons) at CEA-Saclay
- 2002 to present** Head of Laboratory (10 persons) at CEA-Saclay
- 1998-00** Researcher at CEA-Saclay
- 1996-98** Post-doc at Texas A&M University, Supervisor: **Sir Derek Barton**
- 1992-96** Ph.D at CEA-Saclay, Supervisor: **Charles Mioskowski**.

CURRENT RESEARCH INTEREST

- Click and Bio-orthogonal chemistries: reactions with mesoionic compounds used as dipoles partners
- Reaction discovery : High-Throughput Screening approach
- ¹⁴C- labeling : new methodologies for the radiolabeling of molecules and nanoparticles

PUBLICATIONS : 91 ; PATENTS : 9

AWARD 2007: Prize form the catalysis division of the French Chemical Society (SFC)

MAIN RECENT PUBLICATIONS

- **Reaction Discovery using Sandwich Immunoassay.** J.Quinton, S.Kolodych, M. Chaumonet, V. Bevilacqua, M-C. Nevers, H. Volland, S. Gabillet, P. Thuéry, C. Créminon, F. Taran. *Angew. Chem. Int. Ed.* **2012**, *51*, 6144-6148.
- **Discovery of chemoselective and biocompatible reactions using a high-throughput immunoassay screening.** S. Kolodych, E. Rasolofonjatovo, M. Chaumontet, M-C. Nevers, C. Créminon, F. Taran. *Angew. Chem. Int. Ed.*, **2013**, *52(46)*, 12056–12060.
- **Carbon nanotube translocation to distant organs after pulmonary exposition: insights from *in situ* ¹⁴C radiolabelling and tissue radioimaging.** B. Czarny, D. Georgin, F. Berthon, G. Plastow, M. Pinault, G. Patriarche, A. Thuleau, M. Mayne L’Hermite, F. Taran and V. Dive. *ACS Nano*, **2014**, *8* (6), 5715 - 5724.
- **Copper-Chelating Azides for Efficient Click Conjugations in Complex Media.** V. Bevilacqua, M. King, M. Chaumontet, M. Nothisen, S. Gabillet, D. Buisson, C. Puente, A. Wagner, F. Taran. *Angew. Chem. Int. Ed.*, **2014**, *53* (23), 5872-5876.
- **Ultrafast Click Chemistry with Fluoro-sydnone.** H. Liu, D. Audisio, L. Plougastel, E. Decuypere, D-A. Buisson, O. Koniev, S. Kolodych, A. Wagner, M. Elhabiri, A. Krzyczmonik, S. Forsback, O. Solin, V. Gouverneur and F. Taran. *Angew. Chem. Int. Ed.* **2016**, *55*, 12073 – 12077.

Frédéric Taran is in charge of the department of chemistry at the French Alternative Energies and Atomic Energy Commission (CEA) located at Saclay. Dr. Taran secured a PhD in chemistry at the Paris XI University under the supervision of Dr. Charles Mioskowski. In 1996, he moved to a post-doctoral position with Prof. Sir Derek Barton at Texas A&M University (USA) and then came back to CEA in 1998 as permanent researcher. His research aims at developing new reagents for bioorthogonal chemistry to address important problems in the fields of bioconjugation, labelling, imaging and drug delivery.