

Curriculum Vitae

PERSONAL INFORMATION

Name : LAVERGNE Thomas (ResearcherID: N-8896-2013)
Email: thomas.lavergne@ujf-grenoble.fr Nationality: French
Date of birth: September 29th, 1983 Website: [Webpage](#)

• EDUCATION

2006 -2009 PhD in Biomolecular Chemistry, Institut des Biomolécules Max Mousseron (**IBMM**) (Supervisor: Dr. F. Debart), Univ. Montpellier, France.
2004-2006 M.Sc. in Biomolecular Chemistry, IBMM, Univ. Montpellier, France
2001-2004 B.Sc in Organic Chemistry, Univ. Montpellier, France

• CURRENT POSITION

2013 CNRS Research Associate (CR2), **Dept. of Molecular Chemistry of Grenoble**, Univ. Grenoble, France. **Principal Investigator** within the “Engineering of Nucleic Acid conjugates” group. **Research Profile:** Bioorganic Chemistry. Chemical Biology. Chemoselective Ligations. Molecular Recognition. Nucleic Acid Conjugates. Scaffold Assembly. DNA and RNA synthesis and modification. G-quadruplexes. *In Vitro* Selection. Aptamer.

• PREVIOUS POSITIONS

2013 **LABEX Postdoctoral fellow** (<1 year), **Dept. of Molecular Chemistry** of Grenoble (Supervisor: Prof. E. Defrancq), Univ. Grenoble, France. “DNA G-quadruplex formation, recognition and applications”
2010-2012 **NIH Postdoctoral fellow** (3 years), Dept. of Chemistry, **The Scripps Research Institute** (Supervisor: Prof. F. Romesberg), La Jolla, USA. “Expansion of the genetic alphabet: Synthesis, evaluation and application of unnatural base pairs”

• INSTITUTIONAL RESPONSABILITIES AND COMMISSIONS OF TRUST

Since 2015 HCERES national expert evaluator for graduate school programs
Since 2014 Board member of an high-school science education program on “bio-driven Chemistry”
Since 2013 Consultant at [Synthorx](#)

• FELLOWSHIPS AND AWARDS

2015 Laureate of the **research grant AGIR** awarded by the Univ. Grenoble
2014 Co-laureate of the “**Breakthrough of the year People’s Choice 2014**” (by Science magazine) for the study reported in “**A semi-synthetic organism with an expanded genetic alphabet**” (10.1038/nature13314)
2014 Co-laureate of a research grant awarded by the **LABEX Arcane** (ANR-11-LABX-0003-01)
2014 **Ganse-Liesel Award** for Young Scientists (Triennial award from the “*Symposium on Chemistry of Nucleic Acid Components*”)

• TEACHING ACTIVITIES

Since 2013 Regular teaching (practicals and courses 45 h/year) of chemistry (physical and organic) in undergraduate degree courses at the Dpt. of Pharmacy and at the Dpt. of Chemistry and Biology of Univ. Grenoble.

• MAJOR COLLABORATIONS

National **J.-L. Mergny** (IECB, Bordeaux), **S. Amrane** (IECB, Bordeaux), **M.-L. Andreola** (Univ. Bordeaux), **Dennis Gomez** (Univ. Toulouse), **J.-F. Riou** (Museum d’Histoire Naturelle, Paris), **D. Monchaud** (Univ. Bourgogne, Dijon), **G. Pratiel** (Univ. Toulouse), **F. Thomas** (Univ. Grenoble), **M.-P. Teulade-Fichou** (Institut Curie, Orsay).

International **F. Romesberg** (Scripps Research Institute, La Jolla, USA)
B. Elias (Univ. Libre. Louvain, Belgium)

• SELECTED PUBLICATIONS

23 scientific articles, 18 in high-standard multidisciplinary journals or leading international peer-reviewed journals, 1 book chapter, 4 proceedings and 2 licensed patents.

1. R. Bonnet, T. Lavergne*, B. Gennaro, N. Spinelli and E. Defrancq* “Construction of anti-parallel G-quadruplexes through sequential templated click” *Chem. Commun.* **2015**, 51, 4850
2. D. A. Malyshev, K. Dhami, T. Lavergne, Chen, N. Dai, J. M. Foster, I. R. Correa, F. E. Romesberg* “A semi-synthetic organism with an expanded genetic alphabet” *Nature*, **2014**, 509, 384 (featured/highlighted in over three hundreds major journals and newspapers worldwide.)
3. T. Lavergne, M. Degardin, D.A. Malyshev, H. Quach, K. Dhami, P. Ordoukhanian, F.E. Romesberg* “Expanding the Scope of Replicable Unnatural DNA: Stepwise Optimization of a Predominantly Hydrophobic Base Pair” *J. Am. Chem. Soc.*, **2013**, 135, 5408 (featured/highlighted in F1000 faculty). **Patented** (WO/2015/021432) and **licensed** to Synthorx inc.
4. T. Lavergne, Malyshev D. A., F. E. Romesberg* “Major Groove Substituents and Polymerase Recognition of a Class of Predominantly Hydrophobic Unnatural Base Pairs ” *Chem. Eur. J.*, **2012**, 18, 1231.
5. Seo Y. J.[†]; Malyshev D. A.[†]; Lavergne T.[†] ; Romesberg F. E. “Site-Specific Labeling of DNA and RNA Using an Efficiently Replicated and Transcribed Class of Unnatural Base Pairs” *J. Am. Chem. Soc.*, **2011**, 133, 19878-19888. [†]: Co-first authorship

SELECTED INTERNATIONAL PRESENTATIONS

1. “Template assembled synthetic DNA & RNA G-quadruplex” XXIst Round Table on Nucleosides, Nucleotides and Nucleic acids, **2014**, Poznan (**Poland**)
2. “Template assembled synthetic anti-parallel G-quadruplex” XVIth Symposium on Chemistry of Nucleic Acid Components, **2014**, Cesky krumlov (**Czech Republic**)..
3. “Template assembled synthetic quadruplex : construction, recognition and application”, 5th European Conference on Chemistry for Life Sciences, **2013**, Barcelona (**Spain**).
4. “Expansion of the genetic alphabet: Optimization and applications of an unnatural base pair”, 243rd ACS National Meeting, **2012**, San Diego (**USA**).
5. “Acetalester groups for 2'-hydroxyl protection: A new route to oligoribonucleotides.” 4th Nucleic Acid Chemical Biology PhD summer school, **2009**, Odense (**Denmark**).