

Damien Duveau

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HIGHLIGHTS

Strong experience in the techniques of **organic synthesis** applied to natural products synthesis:

- Synthesis of the Hsp90 inhibitor ansamycin antibiotic **geldanamycin**.
- Syntheses of redox active **coenzyme Q** derivatives.
- **Enzymatic resolution** as a tool for asymmetric synthesis and for the separation of racemic mixtures.
- Syntheses of substituted glutamic acids, substituted piperidinones for the preparation of molecules with **antiangiogenic activity** (metabolites of thalidomide).
- Synthesis of a model of pyrimidoblastic acid for the structural investigation of metal-coordinated **bleomycin**.
- Diastereocontrolled syntheses of polysubstituted piperidines and applications in **alkaloids** syntheses.

Molecular structure determination by 1D/2D NMR spectroscopy MS and FTIR spectroscopy.

Strong experience in laboratory management and safety compliance.

EDUCATION

- 2006 **Ph.D. in Chemistry** from the University of Louisville, Kentucky, USA. Research advisor: Dr Frederick A. Luzzio.
- 2001 **M.S. in Chemical Engineering** (Diplôme d'ingénieur) from the National Graduate School of Chemistry, University of Montpellier, France (Ecole Nationale Supérieure de Chimie de Montpellier).
- 1999 **B.S. in Chemistry** from the National Graduate School of Chemistry, University of Montpellier, France.
- 1996 – 1998 Post 'A' level education in **Preparatory Classes**, Lycée Georges Clémenceau, Nantes, France.
- 1996 **Baccalauréat Scientifique with honors**, Lycée Saint-Stanislas, Nantes, France.

RESEARCH AND WORK EXPERIENCE

- 2008 - 2006 **Postdoctoral research associate** at the Center for BioEnergetics, the Biodesign Institute at Arizona State University, Tempe, Arizona, USA. Research advisor: Dr Sidney M. Hecht (center director).
- 2006 - 2000 **Graduate teaching assistant** at the University of Louisville, Kentucky, USA. Supervisor: Dr George Pack (chairman of the Chemistry Department).
- Summer 2000 **Elaborated a research program and led a protocol validation** at InterVascular, a Datascope company specialized in vascular prosthesis production, La Ciotat, France. Advisor: Mr Robert Hill.
- Summer 1999 Undergraduate research at the school of Pharmacy (CNRS, UMR 5810), University of Montpellier, France. Research advisor: Dr Jean Martinez.
- Fall 1998 Technician in the logistics department of Revimex, a Rexel company, Nantes, France.

RESEARCH PUBLICATIONS

Preparation of *beta*-Phenylnitroethanes having Electron-Donating Aryl Substitution
Luzzio, F.A.; Wlodarczyk, M.T.; Duveau, D.Y.; Chen, J.; *Tetrahedron Letters* **2007**, *48*, 6704-6708.

A Chiral Pool Approach toward the Synthesis of Thalidomide Metabolites

Luzzio, F.A.; Duveau, D.Y.; Figg, W.D.; *Heterocycles* **2006**, *70*, 321-334.

Henry (Nitroaldol) Derivatives as Intermediates for Radical-Induced Cyclopentannulation
Luzzio, F.A.; Ott, J.P.; Duveau, D.Y.; *Journal of Organic Chemistry* **2006**, *71*, 5027-5030.

Synthesis of Racemic 5-Hydroxy-3-Phthalimidoglutarimide. A Metabolite of Thalidomide Isolated from Human Plasma.

Luzzio, F.A.; Duveau, D.Y.; Lepper, E.R.; Figg, W.D.; *Journal of Organic Chemistry* **2005**, *70*, 10117-10120.

Enzymatic Resolution of the 1,3,3-Trimethyl-2-Oxabicyclo [2.2.2] Octane (1,8-cineole) System.
Duveau, D.Y. ; Luzzio, F.A. ; *Tetrahedron: Asymmetry* **2002**, *13*, 1173-1180.

RESEARCH PRESENTATIONS

A Henry route to *N*, *O*-substituted 2-piperidinones from aspartate-derived precursors. Presented at:

- Gordon Conference on Natural Products, July 24 – 29, 2005, Tilton, NH
- 229th ACS National Meeting, March 13 – 17, 2005, San Diego, CA, ORGN 158.

Synthetic routes to metabolites and metabolic analogues of thalidomide:

Refinements of the synthesis of 5'-hydroxythalidomide and its acyclic derivatives. Presented at:

- Gordon Conference on Natural Products, July 25 – 30, 2004, Tilton, NH.
- 227th ACS National Meeting, March 28 - April 1, 2004, Anaheim , CA, MEDI 335.

Enzymatic Resolution of the 1,3,3-Trimethyl-2-Oxabicyclo [2.2.2] Octane (1,8-cineole) System. Presented at:

- Gordon Conference on Natural Products, July 28 - August 2, 2002, Tilton, NH.
- 224th ACS National Meeting, August 18 - 22, 2002, Boston , MA, ORGN 552.

AFFILIATIONS

American Chemical Society.

French Chemical Society (Société Française de Chimie).

Ecole Nationale Supérieure de Chimie de Montpellier Alumni.

EXTRA-CURRICULAR ACTIVITIES

- 2006 – 2004 **Assistant instructor** at the American Chundokwan Tae Kwon Do Association (second dan black belt).
- 2000 – 2001 Officer at the University of Louisville **Chemistry Graduate Student Association**.
- 1999 – 2000 **Chaired** the participation of the National Higher School of Chemistry of Montpellier at the EDHEC sailing race.
- 1996 – 1998 Assistant scoutmaster. Organized and managed the logistics of boy scouts camps.

REFERENCES

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