# Gaël Tran

CNRS Research Associate

## Current position

Oct. 2021– Present **CNRS Research Associate, University of Lyon, Lyon, France**
Institute of Molecular and Supramolecular Chemistry and Biochemistry (ICBMS)

## Research Experience

Oct. 2017– July 2021 **Postdoctoral Associate, University of Lyon, Lyon, France.**
Advisor: Prof. Abderrahmane Amgoune
*Synergetic Nickel/Cerium photocatalysis*

Sept. 2017– Aug. 2020 **Postdoctoral Associate, Geneva University, Geneva, Switzerland.**
Advisor: Prof. Clément Mazet
*Asymmetric Ni(0)-catalyzed hydrofunctionalization of 2-substituted 1,3-dienes.*

Jan. 2016– June 2017 **Postdoctoral Associate, Yale University, New Haven, CT, USA.**
Advisors: Prof. Jonathan A. Ellman (Yale), Dr. Kevin D. Hesp (Pfizer).
Funding: Pfizer Inc.
*Rh(I)-catalyzed C–H alkylation of nitrogen-containing heterocycles*

Nov. 2012– Nov. 2015 **Ph.D Student, Laboratoire de Chimie Organique, ESPCI, Paris, France.**
Advisors: Prof. Janine Cossy (ESPCI), Dr. Tomoki Tsuchiya (Bayer).
Funding: Bayer CropScience AG.
*Synthesis of phosphonylated pyrazoles and fluorinated pyridazines.*
Awarded with highest honors.

Feb. 2012– Aug. 2012 **M.Sc. Internship, Whiffen Laboratory, Cambridge, UK.**
Advisor: Prof. Steven V. Ley.
*Design, synthesis and use of a new trifluoromethylated azomethine ylide precursor.*

Aug. 2010– Aug. 2011 **Industrial Internship, GlaxoSmithKline Ltd., Stevenage, UK.**
Advisor: Dr. David J. Hirst.
*Synthesis of histone mimetics as selective bromodomain antagonists.*
Rewarded for Productivity & Excellence (Bronze Recognition Award).

## Education

2011–2012 **Université Claude Bernard, Lyon, France.**
M.Sc. in Chemistry (Major in Organic & Organometallic Chemistry).
Rank: 1st/26.

2008–2012 **Ecole Supérieure de Chimie, Physique, Electronique de Lyon (CPE Lyon), Lyon, France.**
Graduate Engineering School (Major in Chemistry & Chemical Engineering).

2006–2008 **Classes Préparatoires, Institution des Chartreux, Lyon, France.**

# Publications

11) *Nickel-Catalyzed Kumada Vinylation of Enol Phosphates: A Comparative Mechanistic Study*; Poisson, P.-A.; Tran, G.; Besnard, C.; Mazet, C. *ACS Catal.* **2021**, *11*, 15041–15050.
10) *Ni-Catalyzed Regioselective Hydroalkoxylation of Branched 1,3-Dienes;* Tran, G.; Mazet, C. *Org. Lett.* **2019**, *21*, 9124–9127.
9) *Ni-Catalyzed Enantioselective Intermolecular Hydroamination of Branched 1,3-Dienes Using Primary Aliphatic Amines*; Tran, G.; Shao, W.; Mazet, C. *J. Am. Chem. Soc.* **2019**, 141, 14814–14822.
8) *Selective Generation of (1H-1,2,4-triazol-1-yl)methyl Carbanion and Condensation with Carbonyl Compounds*; Lassalas, P.; Claraz, A.; Tran, G.; Vors, J.-P.; Tsuchiya, T.; Coqueron, P.Y.; Cossy, J. *Eur. J. Org. Chem.* **2017**, 6991–6996.
7) *C2-Selective Branched Alkylation of Benzimidazoles by Rh(I)-Catalyzed C–H Activation*; Tran, G.; Confair, D.; Hesp, K. D.; Mascitti, V.; Ellman, J. A. *J. Org. Chem.* **2017**, *82*, 9243–9252.
6) *Synthesis of Functionalized 5-Fluoropyridazines*, Feraldi-Xypolia, A.; Fredj, G.; Tran, G.; Tsuchiya, T.; Vors, J.-P.; Mykhailiuk, P.; Gomez Pardo, D.; Cossy, J. *Asian J. Org. Chem.* **2017**, *6*, 927–935.
5) *Base-Controlled Linear or Branched Rh(I)-Catalyzed C–H ortho-Alkylation of Azines without Preactivation*, Tran, G.; Hesp, K. D.; Mascitti, V.; Ellman, J. A. *Angew. Chem. Int. Ed.* **2017**, *56*, 5899–5903.
4) *Modular, Concise and Efficient Route to Highly Functionalized 5-Fluoropyridazines by a [2+1]/[3+2]-Cycloaddition Sequence*, Tran, G.; Gomez Pardo, D.; Tsuchiya, T.; Hillebrand, S.; Vors, J.-P.; Cossy, J. *Org. Lett.* **2015**, *17*, 3414–3417.
3) *Palladium-Catalyzed Phosphonylation of Pyrazoles Substituted by Electron-Withdrawing Groups*, Huang, Q.; Tran, G.; Gomez Pardo, D.; Tsuchiya, T.; Hillebrand, S.; Vors, J.-P.; Cossy, J. *Tetrahedron* **2015**, *71*, 7250–7259.
2) *Palladium-Catalyzed Phosphonylation: Synthesis of C3-, C4- and C5-Phosphonylated Pyrazoles*, Tran, G.; Gomez Pardo, D.; Tsuchiya, T.; Hillebrand, S.; Vors, J.-P.; Cossy, J. *Org. Lett.* **2013**, *15*, 5550–5553.
1) *Synthesis and Use of a Trifluoromethylated Azomethine Ylide Precursor*, Tran, G.; Meier, R.; Harris, L.; Browne, D. L.; Ley, S. V. *J. Org. Chem.* **2012**, *77*, 11071–11078.

# Oral Communications

8) *Enantioselective Nickel-Catalyzed Amination of 2-Substituted 1,3-Dienes*. Swiss Chemical Society Fall Meeting, Zürich (Switzerland). 06/09/2019.
7) *Ni-Catalyzed Enantioselective Intermolecular Hydroamination of Branched 1,3-Dienes Using Primary Aliphatic Amines*. **(Poster)**. 21st European Symposium on Organic Chemistry, Vienne (Austria). 14/10/2019-18/06/2019.
6) *Base-Controlled Linear or Branched Rh(I)-Catalyzed C–H ortho-Alkylation of Azines*. **(Poster)**. Gordon Research Conference: Heterocyclic Compounds, Salve Regina University, Newport, RI (USA). 18/06/2017–23/06/2017.
5) *Pallado-catalyzed Phosphonylation of Pyrazoles and Synthesis of Fluoropyridazines by a [2+1]/[3+2]-Cycloaddition Sequence*. Bayer CropScience Symposium, Monheim am Rhein (Germany). 07/12/2015.
4) *Synthesis and Functionalization of Phosphonylated Pyrazoles and Fluorinated Pyridazines*. Bayer CropScience Symposium, Lyon (France). 03/07/2014.
3) *Synthesis of C3-, C4- and C5-Phosphonylated Pyrazoles*. **(Poster).** 17e Journée de la Montagne Sainte Geneviève, Institut Curie, Paris (France). 11/06/2014.

2) *Synthesis of C3-, C4- and C5-Phosphonylated Pyrazoles.* 14e Journées de Chimie Moléculaire de l'ED406, Université Pierre et Marie Curie, Paris (France). 05/06/2014.

1) *Application of Metal-Catalyzed Cross-Couplings to C($sp^2$)–P bond Formation*. Journées Bibliographiques de l'ED406, Université Pierre et Marie Curie, Paris (France). 24/01/2013.