

# Nicolas GARREAU DE LOUBRESSE, Ph.D.

Wyss Institute at Harvard - CLSB 5th floor, 3 Blackfan Circle, Boston, MA 02115  
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## EDUCATION

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### UNIVERSITY OF STRASBOURG, FRANCE

- Ph.D. Molecular and Cell Biology - Highest honors** 2009 - 2012  
Thesis: Structural study of the eukaryotic ribosome (Best PhD Thesis Award)  
Supervisors: Dr. Marat Yusupov and Dr. Gulnara Yusupova
- M.Sc. Molecular and Structural Biology - Summa cum laude** 2007 - 2009
- B.Sc. Life Sciences - Summa cum laude** 2004 - 2007

## RESEARCH EXPERIENCE

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**HFSP Postdoctoral Fellow | Harvard Medical School – Wyss Institute at Harvard** United States 2014 - Present  
Laboratory of Prof. Peng Yin – Molecular Systems Lab

**Research Fellow | CNRS/IGBMC** France 2012 - 2014  
Laboratory of Dr. Marat Yusupov – Structure and Function of the Ribosome

- Developed new methods to visualize small-molecule inhibitors in complex with the eukaryotic ribosome
- Completed the project by unveiling the structural basis of 15 clinically relevant inhibitors, including marketed drugs
- Co-developed NMR techniques to detect and characterize antibiotics binding to the bacterial ribosome

**PhD Candidate | CNRS/IGBMC** France 2009 - 2012  
Laboratory of Dr. Marat Yusupov – Structure and Function of the Ribosome

- Worked in a team environment on a multi-disciplinary project which led to the first atomic structure determination of the eukaryotic ribosome by X-ray crystallography (80 proteins, 5500 nucleotides)

## BUSINESS DEVELOPMENT

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**Business Development Fellow | Harvard Office of Technology Development** United States 2015 - Present

- Manage a portfolio of biomedical technologies and drug candidates (small molecules, biologics) developed at Harvard
- Evaluate markets, assess IP and patent landscapes, identify potential licensing partners, prepare marketing decks

**Co-Founder | RiboStruct** France 2015 - Present  
RiboStruct – Drug discovery and development targeting the eukaryotic ribosome

- Initiated and led the startup project based on my PhD work (2011-2014), co-founded the company (2015)
- Conceived IP strategy, business model and business plan, pitched to investors (seed/VC)
- Laureate of BPI France national startup competition and SEMIA startup accelerator program

## TEACHING

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**Teaching Assistant | University of Strasbourg** France 2010 - 2012

- Prepared teaching materials and taught biochemistry and molecular biology classes to undergraduates (150 hours)

## RESEARCH GRANT

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**Innovative Technology Development Grant, SATT Conectus Alsace (Principal Investigator)** 2012 - 2013  
Research grant awarded to further optimize the technology developed during my PhD to enable structure-based drug design of ribosome inhibitors in industry. Therapeutic areas: infectious diseases, oncology and genetic disorders.

**SELECTED HONORS & AWARDS**

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Philippe Foundation Award, Philippe Foundation Inc.	2015
HFSP Postdoctoral Fellowship, Human Frontier Science Program	2015
EMBO Postdoctoral Fellowship, European Molecular Biology Organization	2015
Co-laureate of SEMIA Alsace 18-month Startup Accelerator Program, SEMIA	2014
Laureate of BPI French National Competition for Innovative Technology Startups, BPI France	2014
Scientific Artworks Featured in "The World in Equations" Exhibition in Paris	2014
Breakthrough in Life Sciences Award, French Academy of Sciences	2013
PhD Thesis Award, University of Strasbourg	2013
Graduate Research Fellowship (ranked 1 <sup>st</sup> ), French Ministry of Research	2009
First in Class Awards - B.Sc. and M.Sc. degrees, French Ministry of Education	2008

**PUBLICATIONS**

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Mailliot J., Garreau de Loubresse N., Yusupova G., Dinman J. and Yusupov M. (2016). Crystal structures of the uL3 mutant ribosome: the importance of ribosomal proteins for translation efficiency. *Journal of Molecular Biology*.

Garreau de Loubresse N., Prokhorova I., Holtkamp W., Rodnina M., Yusupova G., and Yusupov M. (2014) Structural basis for the inhibition of the eukaryotic ribosome. *Nature*. (featured in the News & Views section)

Jenner L., Melnikov S., Garreau de Loubresse N., Ben-Shem A., Iskakova M., Urzhumtsev A., Meskauskas A., Dinman J., Yusupova G., and Yusupov M. (2012). Crystal structure of the 80S yeast ribosome. *Current Opinion in Structural Biology*.

Melnikov S., Ben-Shem A., Garreau de Loubresse N., Jenner L., Yusupova G., and Yusupov M. (2012). One core, two shells: bacterial and eukaryotic ribosomes. *Nature Structural Molecular Biology*.

Ben-Shem A.\*, Garreau de Loubresse N.\*, Melnikov S.\*, Jenner L., Yusupova G., Yusupov M. (2011). The structure of the eukaryotic ribosome at 3.0 Å resolution. *Science*. \* Equal contribution (featured on the cover)

**SELECTED MEETINGS & COURSES** (\* invited speaker)

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60 <sup>th</sup> Biophysical Society Annual Meeting, United States	2016
Nanoagents for Spatiotemporal Control of Molecular and Cellular Reactions, Germany *	2015
21st International Conference on DNA Computing and Molecular Programming, United States	2015
Gordon Research Conference: New Antibacterial Discovery & Development, United States	2014
ARIIS Antibiotics and Novel Therapeutic Strategies, France *	2013
EMBO Conference: Protein Synthesis and Translational Control, Germany *	2013
Annual Congress of the French Society of Crystallography, France *	2013
Gordon Research Conference: New Antibacterial Discovery & Development, Italy	2012
PSDI - Protein Structure Determination in Industry, France	2012
EMBO Conference: Protein Synthesis and Translational Control, Germany	2011
International School of Crystallography: Structure and Function from Macromolecular Crystallography, Italy	2010