Aleksandra Nivina

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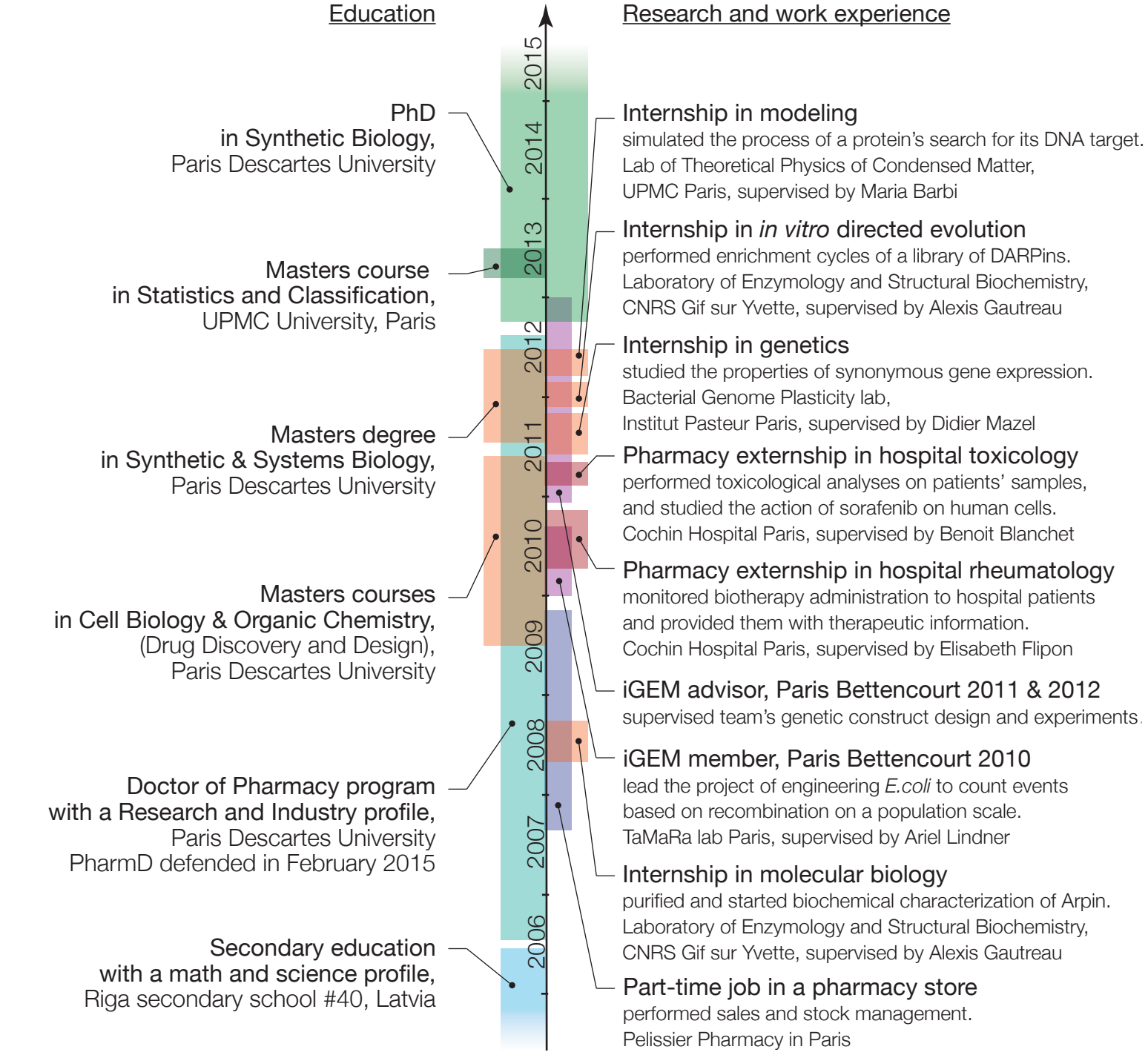
Nationality: Latvian

Currently

PhD student designing the synthetic integron, an automated protein domain shuffling platform, with an application in novel antibiotic production by PKS (polyketide synthase) enzymes
Key words: non-homologous recombination, DNA secondary structure, genetic algorithm
Lab: Prof. Didier Mazel's lab at the Pasteur Institute in Paris
Doctoral School: international PhD program "Frontiers in Life Sciences", Paris Descartes University



Teaching and science outreach

2013-present organizer of the «Visionary Talks» about researchers' vision of future science, Paris, France
2012-2014 teaching assistant in a Systems Biology Masters course, Paris, France
2010-2014 organizer of the Synthetic Biology journal club, Paris, France
2010-2012 iGEM team advisor, Paris, France
2006-2009 lecturer and project organizer for scientific school summer camps, Riga, Latvia

International awards

MIT's International Genetically Engineered Machines competition (iGEM), Boston, USA
2012 Best Environmental Project, 2nd Runner-up in World Championship
2011 Best Presentation Prize, Finalist of the European Championship
2010 Best Fundamental Advance Prize sponsored by SynBERC

International Linguistics Olympiads, Bulgaria (2003), Russia (2004), Netherlands (2005)
2005 Encouragement in individual contest
2004 2nd Place in team contest

Fundings obtained

2012-2015 3-year PhD funding, University Paris Descartes, France
2012-2014 4th year PhD funding, Medical Research Foundation (FRM), France

IT skills

MATLAB, python
Geneious, Clone Manager
Microsoft Office, Adobe Illustrator

Languages

Russian: native
English, French, Latvian: proficient user
German: basic

Scientific publications

J.A.Escudero, C.Loot, A.Nivina, D.Mazel. The Integron: Adaptation On Demand. Microbiology spectrum, 2015 (Review)

A.Nivina, J.A.Escudero, D.Mazel, C.Loot. Efficient integron cassette insertion in correct orientation is ensured by the ensemble of cassette recombination site (*attC*) features. *In preparation*

J.A.Escudero, C.Loot, V.Parissi, A.Nivina, C.Bouchier, D.Mazel. The integron integrase has an extended recombination repertoire. *In preparation*

Posters at conferences and congresses

A.Nivina, M.S.Grieb, D.Bikard, D.Mazel : Synthetic integron as a tool for in vivo protein domain shuffling, *International Synthetic and Systems Biology Summer School*, 2014

M.Swoboda, M.S.Grieb, A.Nivina, D.Mazel, M.Schlierf. DNA secondary structure formation in bacterial gene capture systems at single-molecule resolution, *Annual Meeting of the Biophysical Society*, 2014

J.A.Escudero, A.Nivina, A.Babic, C.Loot, D.Mazel. Selecting Hyperactive Integrases Through Synonymous Gene Evolution, *SGM Warwick 2012*; *ICTE Saint-Malo* 2012; *FEMS Leipzig* 2013; *SEM Barcelona* 2013; *CNB Madrid* 2013

Other publications

X.Duportet, A.Nivina: Panorama de la Biologie de Synthèse en France (Panorama of Synthetic Biology in France), *Governmental Report for the Innovation Committee 2030*, 2013