

CURRICULUM VITAE

NAME: ANDREAS AGATHANGELIDIS

CURRENT POSITION: Assistant Professor of Molecular Genetics, Section of Genetics & Biotechnology, Department of Biology, School of Science, National and Kapodistrian University of Athens, Athens, Greece

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STUDIES/EDUCATION

INSTITUTE	DEGREE	DATE	RESEARCH FIELD
Department of Biological Applications and Technologies, Ioannina, Greece	Bachelor and Integrated Master	11/2006	Molecular Biology and Immunogenetics
School of Biology, Aristotle University of Thessaloniki, Thessaloniki, Greece	Ph.D.	07/2012	Molecular Biology and Immunogenetics
Laboratory of B-cell Neoplasia, San Raffaele Scientific Institute, Milan, Italy	Post-doc Research	12/2016	Molecular Genetics and Immunogenetics
Institute of Applied Biosciences, Thessaloniki, Greece	Group Leader	6/2021	Molecular Genetics

A. POSITIONS AND HONORS

Positions and Employment

- **External scientific collaborator**, - Department of Haematology and HCT Unit, G. Papanicolaou Hospital, Thessaloniki, Greece **(2006-2007)**
- **External scientific collaborator**, Institute of Agrobiotechnology, Centre for Research and Technology Hellas (CERTH), Thessaloniki, Greece **(2007-2012)**
- **PhD student**, School of Biology, Aristotle University of Thessaloniki, Thessaloniki, Greece **(2008-2012)**
- **Training in the analysis of immunogenetic data**, IMGT®: the international ImMunoGeneTics information system®, Montpellier, France **(11/2011-2/2012)**
- **Postdoctoral Researcher**, Laboratory of B cell Neoplasia, San Raffaele Scientific Institute, Milan, Italy **(2012-2016)**
- **Postdoctoral Researcher**, Institute of Applied Biosciences, Centre for Research and Technology Hellas (CERTH), Thessaloniki, Greece **(2017-2019)**
- **Group Leader**, Institute of Applied Biosciences, Centre for Research and Technology Hellas (CERTH), Thessaloniki, Greece **(2019-2021)**.

Other professional activities

- **Project Leader/Coordinator for the collection and analysis of immunogenetic data**, European Research Initiative in CLL (ERIC) **(2018-today)** (<http://www.ericll.org/projects/>).
- **Responsible for managing the largest immunogenetic database worldwide (IMGT/CLL-DB) (2011-today)**
(<https://www.imgt.org/CLLDBInterface/query>).
- **Quality assessor in the field of production and analysis of immunogenic data**, UK NEQAS **(2020)**.

Professional Memberships

- 2011 - today** Member, Hellenic Society of Haematology
- 2013 - today** Member, European Hematology Association (EHA)
- 2014 - today** Member, IgCLL Group
- 2014 - today** Member, European Research Initiative on CLL (ERIC)
- 2020 - today** Member, Panhellenic Union of Bioscientists

Ad hoc reviewer in scientific journals

Haematologica (Impact Factor 7.57)

Leukemia and Lymphoma (Impact Factor 3.093)

Cellular Immunology (Impact Factor 3.291)

Expert Review of Hematology (Impact Factor 2.07)

Frontiers Cell and Developmental Biology (Impact Factor 5.206)

BMJ Open (Impact Factor 2.376)

Experimental and Molecular Pathology (Impact Factor 2.38)

Biomedicine and Pharmacotherapy (Impact Factor 4.545)

Frontiers in Immunology (Impact Factor 4.530)

European Journal of Pharmacology (Impact Factor 3.170)

Guest editor

Frontiers in Oncology (Impact Factor 4.25)

Reviewer in scientific congresses

- 24th Congress of the European Hematology Association (EHA), (2019).

Reviewer of scientific funding proposals

- Open access project, ID number LM2011020, Ministry of Education, Youth and Sports of the Czech Republic under the activity “Projects of major infrastructures for research, development and innovations”, (2016).
- European Haematology Association (EHA) Research Grants applications, (2021).

Invited speaker

1. ERIC International Meeting: New Frontiers in CLL Research, Barcelona 2018
2. ELN Symposium, Mannheim 2018
3. ERIC International Workshop, Biomarkers in Chronic Lymphocytic Leukemia: the art of synthesis, Belgrade 2018
4. ERIC International Workshop, Biomarker-guided management of Chronic Lymphocytic Leukemia, Moscow 2018
5. ICGEB, "Next Generation Diagnostics" workshop, Skopje 2018

6. ECCB, "Interactive visualizations to guide health diagnostics and personalized medicine" Workshop, Athens 2018
7. ERIC Educational Workshop, Immunoglobulin gene sequence analysis in CLL, Washington, USA 2019
8. ERIC International Workshop, Realizing precision medicine in Chronic Lymphocytic Leukemia: Biomarkers for Improved Risk Stratification, Tel Aviv 2019
9. ERIC Virtual Workshop, Realizing precision medicine in Chronic Lymphocytic Leukemia: Biomarkers for Improved Risk Stratification, 2020
10. ERIC 2020 Virtual meeting, New frontiers in CLL Research, 2020
11. NGS School "#NEXTINCLL: Hypermutational Status & Immunoglobulin Rearrangement", 2020
12. A holistic approach to the management of CLL, 2021

Selected Honors

- 2017 Seal of Excellence delivered by the European Commission** in the context of the EU Framework Programme for Research and Innovation 2014-2020 for the proposal INTEGRAL (No. 748537).
Title: *"High-Throughput Immunoprofiling Of The Antigen Receptor Gene Repertoires In Low-Count Monoclonal B-Cell Lymphocytosis. Ontogenetic Implications for Chronic Lymphocytic Leukemia"*.
- 2017 «Arkagathos Gouttas» Award, Best oral presentation, Hellenic Society of Haematology, 28th annual congress, Greece**
Title: *"Large scale immunogenetic analysis reveals that Low-count Monoclonal B cell Lymphocytosis and Chronic Lymphocytic Leukemia have distinct immunogenetic profiles: ontogenetic implications"*.
- 2018 Seal of Excellence delivered by the European Commission** in the context of the EU Framework Programme for Research and Innovation 2014-2020 for the proposal INTEGRAL (No. 798610)
Title: *"B and T Cell Receptor Gene Repertoires in Monoclonal B Cell Lymphocytosis. Implications for the Ontogeny of Chronic Lymphocytic Leukemia"*.
- 2018 Best oral presentation, Hellenic Society of Haematology, 29th annual congress, Greece**
Title: *"Large-scale analysis of the anti-viral T-cell repertoire: Extensions for immunotherapy with specific T lymphocytes and the stratification of the immune risk of viral infections"*.
- 2019 Best oral presentation, Hellenic Society of Haematology, 29th annual congress, Greece**
Title: *"Truly unmutated immunoglobulin clonotypic rearrangements in Chronic Lymphocytic Leukemia: Reality or myth"*.

B. SCIENTIFIC WORK

Link: <https://scholar.google.com/citations?user=lhoRB4AAAAAJ&hl=en>

Citations: 2767 (2172 since 2016)

h-index: 24 (23 since 2016)

i10-index: 42 (39 since 2016)

source: Google Scholar

Selected publications in peer-reviewed scientific journals

- 1. Stereotyped B-cell receptors in one third of chronic lymphocytic leukemia: toward a molecular classification with implications for targeted therapeutic interventions.**
Agathangelidis A, Darzentas N, Hadzidimitriou A, et al. *Blood*. 2012.
- 2. Establishment and Characterization of PCL12, a Novel CD5+ Chronic Lymphocytic Leukaemia Cell Line.**
Agathangelidis A, Scarfò L, Barbaglio F, et al. *PLoS One*. 2015.
- 3. ARResT/AssignSubsets: a novel application for robust subclassification of chronic lymphocytic leukemia based on B cell receptor IG stereotypy.**
Bystry V*, Agathangelidis A*, Bikos V*, Sutton LA, Baliakas P, Hadzidimitriou A, Stamatopoulos K, Darzentas N; European Research Initiative on CLL. *equal first authors. *Bioinformatics*. 2015.
- 4. A complementary role of multiparameter flow cytometry and high-throughput sequencing for minimal residual disease detection in chronic lymphocytic leukemia: an European Research Initiative on CLL study.**
Rawstron AC, Fazi C, Agathangelidis A, et al. *Leukemia*. 2016.
- 5. Highly similar genomic landscapes in monoclonal B-cell lymphocytosis and ultra-stable chronic lymphocytic leukemia with low frequency of driver mutations.**
Agathangelidis A, Ljungström V, Scarfò L, et al. *Haematologica*. 2018.
- 6. Automated shape-based clustering of 3D immunoglobulin protein structures in chronic lymphocytic leukemia.**
Polychronidou E, Kalamaras I, Agathangelidis A, et al. *BMC Bioinformatics*. 2018.
- 7. Immunoglobulin Gene Sequence Analysis In Chronic Lymphocytic Leukemia: From Patient Material To Sequence Interpretation.**
Agathangelidis A, Sutton LA, Hadzidimitriou A, et al. *J Vis Exp*. 2018.
- 8. High-throughput analysis of the T cell receptor gene repertoire in low-count monoclonal B cell lymphocytosis reveals a distinct profile from chronic lymphocytic leukemia.**

Agathangelidis A, Galigalidou C, Scarfò L, et al. Haematologica. 2020.

- 9. Infrequent "Chronic Lymphocytic Leukemia-Specific" Immunoglobulin Stereotypes in Aged Individuals With or Without Low Count Monoclonal B Cell Lymphocytosis.**

Agathangelidis A, Galigalidou C, Scarfò L, Moysiadis T, Rovida A, Gounari M, Psomopoulos F, Ranghetti P, Galanis A, Davi F, Stamatopoulos K, Chatzidimitriou A, Ghia P. Haematologica. 2020.

- 10. A novel taxonomy of Chronic Lymphocytic Leukemia based on higher-order connections between stereotyped subsets.**

Agathangelidis A, Hadzidimitriou A, Gemenetzi K, et al. Blood. 2020.

- 11. The Significance of B-cell Receptor Stereotypy in Chronic Lymphocytic Leukemia: Biological and Clinical Implications.**

Vlachonikola E, Sofou E, Chatzidimitriou A, Stamatopoulos K, **Agathangelidis A**. Hematol Oncol Clin North Am. 2021.

Selected oral presentations in scientific congresses

- 1. The Composition of the B Cell Receptor Repertoire In 7428 Cases of Chronic Lymphocytic Leukemia: One Third Stereotyped, Two Thirds Heterogeneous - What Does This Mean?**

Agathangelidis A, Darzentas N, Hadzidimitriou A, et al. 53rd ASH Annual Meeting - San Diego, CA, USA 2011.

- 2. BcR stereotypy makes a clinical difference in CLL: revelations from a multi-institutional series of 4615 cases.**

Baliakas P, Minga E, Hadzidimitriou A, Tsanousa A, Sutton LA, **Agathangelidis A**, et al. 18th Congress of the EHA, Stockholm, Sweden 2013

- 3. Cell-autonomous, antigen-independent signalling in chronic lymphocytic leukemia: a novel signal-generating mechanism or simply a variation of classic auto-antigenic triggering?**

Agathangelidis A, Lefranc MP, Degano M, Stamatopoulos K, and Ghia P; on behalf of the European Research Initiative on CLL (ERIC). XV iwCLL Meeting, Cologne, Germany 2013

- 4. Dissecting resistance mechanisms in chronic lymphocytic leukemia using whole-exome sequencing: impact of recurrent rps15 mutations on p53 dysregulation.**

Ljungstrom V, Cortese D, Young E, Pandzic T, Mansouri L, Plevova K, Sutton LA, Stavroyianni N, **Agathangelidis A**, et al. 20th Congress of the EHA - Vienna, Austria 2015

- 5. 3D Protein-Structure-Oriented Discovery of Clinical Relation Across Chronic Lymphocytic Leukemia Patients.**

Mochament K, **Agathangelidis A**, et al. International Conference on Bioinformatics and Biomedical Engineering, Granada, Spain 2017

6. The Pathogenesis of Multiple Myeloma (MM) Is Preceded By Mutated Lymphopoiesis and B Cell Oligoclonality That Persist in Patients with Negative Minimal Residual Disease (MRD).

Rodríguez S, Goicoechea I, Gemenetzi K, Botta C, **Agathangelidis A**, et al. 61st ASH Annual Meeting – Orlando, FL, USA 2019

7. Discordances between Immunofixation (IFx) and Minimal Residual Disease (MRD) Assessment with Next-Generation Flow (NGF) and Sequencing (NGS) in Patients (Pts) with Multiple Myeloma (MM): Clinical and Pathogenic Significance.

Rodríguez S, Goicoechea I, Gemenetzi K, Botta C, **Agathangelidis A**, et al. 62nd ASH Annual Meeting – All-virtual event 2020

Selected poster presentations in scientific congresses

1. Higher-order Immunoglobulin sequence relations for major subsets of Chronic Lymphocytic Leukemia: Uniqueness versus Equivalence.

Agathangelidis A, Bystry V, Hadzidimitriou A, et al. 20th Congress of the EHA - Vienna, Austria 2015.

2. Profiling the Genomic Landscape at the Early Stages of CLL: Low Genomic Complexity and Paucity of Driver Mutations in MBL and Indolent CLL.

Agathangelidis A, Ljungström V, Scarfò L, et al. 58th ASH Annual Meeting - San Diego, CA, USA 2016.

3. Reappraising Immunoglobulin Repertoire Restrictions in Chronic Lymphocytic Leukemia: Focus on Major Stereotyped Subsets and Closely Related Satellites.

Agathangelidis A, Hadzidimitriou A, Minga E, et al. 58th ASH Annual Meeting - San Diego, CA, USA 2016.

4. High Throughput Immunoprofiling of Low Count B Lymphocytosis Reveals a Distinct T Cell Receptor Repertoire from Chronic Lymphocytic Leukemia.

Agathangelidis A, Galigalidou C, Scarfò L, et al. 59th ASH Annual Meeting - Atlanta, GA, USA 2017.

5. CLL-specific B cell Receptor Immunoglobulin Stereotypes Are Very Infrequent in Low-count Monoclonal B cell Lymphocytosis: Implications for Disease Ontogeny.

Agathangelidis A, Galigalidou C, Scarfò L, et al. 59th ASH Annual Meeting - Atlanta, GA, USA 2017.

C. RESEARCH FUNDING

Current projects

- Research project “CLLon: Immunogenetic and functional analysis of the B-cell receptor in monoclonal B-cell lymphocytosis and chronic lymphocytic leukemia: implications for disease ontogeny” supported by the Hellenic Foundation for Research and Innovation (HFRI) under grant no 336. (2018-2021).
Role: Principal Investigator
- Research project “Large-scale genomic analysis in samples of healthy individuals with monoclonal B lymphocytosis (MBL) and patients with chronic lymphocytic leukemia (CLL) for the detection of oncogenic lesions” supported by Gilead Hellas. (2020-2021)
Role: Principal Investigator
- Research project “COSMIC, Combatting Disorders of Adaptive Immunity with Systems Medicine” supported by the EU (grant agreement No 765158). (2018-2021)
Role: mentor of the PhD candidate Laura Zaragoza-Infante
- Research project "KRIPIS II ODYSSEUS, Intelligent and Automated Systems for the Design, Simulation, and Development of Integrated Products and Processes" supported by the EU (MIS code 5002462). (2017-2021)
Role: Analysis of molecular and immunogenetic biomarkers for the development of disease models

Completed projects

- Scholarship from the “Leventis” Foundation. (Greece, 2010 - 2011)
Role: Principal Investigator
- Research project “Toward Chronic Lymphocytic Leukemia (CLL): dissecting the role of genetic lesions in Monoclonal B cell Lymphocytosis (MBL) through a genome-wide sequencing approach” supported by the Italian Ministry of Health (grant agreement No RF-2010-2318823). (Italy, 2010-2014)
Role: Design and implementation of experiments, Data analysis
- Research project “Harnessing tumour microenvironment cross talk to treat mature B cell tumours” supported by the Italian Ministry of Health (AIRC 5x1000). (Italy, 2012-2013)
Role: Design and implementation of experiments, Data analysis
- Scholarship “*Guglielmina Lucatello e Gino Mazzega*” from the FIRC foundation. (Italy, 2012-2015)
Role: Principal Investigator

- Research project “CEITEC, open access project - Thorough screening of normal individuals for the presence of CLL stereotypes using NGS” supported by the Ministry of Education, Youth and Sports of the Czech Republic (no LM2011020). (Italy, 2013)
Role: Design and implementation of experiments, Data analysis
- Research project “Harnessing tumour cell/microenvironment cross talk to treat mature B-cell tumours” supported by the Italian Association against Cancer (AIRC). (Italy, 2013-2014)
Role: Design and implementation of experiments, Data analysis
- Research project “AEGLE, An Analytics Framework for Integrated and Personalized Healthcare Services in Europe” supported by the EU (grant agreement No 644906). (Italy - Greece, 2015-2018)
Role: Large-scale analysis of genomic data
- Research project “Immunogenetic analysis of healthy individuals with/without monoclonal B lymphocytosis: ontogenetic extensions for chronic lymphocytic leukemia” supported by Gilead Sciences. (2016)
Role: Principal Investigator
- Research project “P63 - A novel player underlying clinical aggressiveness in chronic lymphocytic leukemia regulated by B cell receptor signaling and linked to NF- κ B activation” supported by Janssen Pharmaceuticals. (2016-2019)
Role: Design and implementation of experiments, Data analysis

D. TEACHING/EDUCATIONAL EXPERIENCE

- Conduct of laboratory exercises for the course of Molecular Biology of the Department of Biology, AUTH during the academic years 2009-2011.
- Co-supervision of the dissertational thesis of an undergraduate student on: "Rearrangement of the IgG genetic locus of the heavy chain of immunoglobulins in patients with chronic lymphocytic leukemia", with Dr Kostas Stamatopoulos, Director of INAB
 - Co-supervision of PhD theses under titles:
"Molecular and immunogenetic analysis with large-scale sequencing methodologies in lymphoproliferative disorders and proleukemic entities",
"Immunogenetic analysis and molecular characterization of T lymphocytes in patients with Chronic Lymphocytic Leukemia with different prognosis",

"Analysis of the mechanism of somatic hypermutations in immunoglobulin genes with large-scale sequencing methodologies in patients with lymphoproliferative diseases", with Dr Anastasia Chatzidimitriou, Researcher at INAB (2016 - today).

and "Study of the functional effects of the affinity maturation process on the ontogeny and evolution of lymphomas through the combination of immunogenetic analysis with NGS techniques and the analysis of three-dimensional structures", with Dr Maria Papaioannou, Associate Professor, Department of Medicine, AUTH (2018 - today).

- Co-supervision of dissertational theses of undergraduate students under titles: "Study of the relationship between proleukemic entity (Monoclonal B cell Lymphocytosis) and leukemia (Chronic Lymphocytic Leukemia) at the immunogenetic and transcriptional levels", with Dr Kostas Stamatopoulos, Director of INAB and "Analysis of large-scale immunogenetic data for the characterization of the phenomenon of clonal evolution in patients with B cell malignancies", with Dr Anastasia Chatzidimitriou, Researcher at INAB (2018 - today).
- Teaching at the Master's course "Applications of Biology" of the School of Biology, Aristotle University of Thessaloniki. Title: "Chronic Lymphocytic Leukemia" (2019-2020).
- Teaching the undergraduate courses "Cancer Biology" and "The world of RNA" at the Department of Biological Applications and Technologies, University of Ioannina (2019-2020).
- Teaching at the course "Genetic Approach to Diseases-Molecular Diagnostics" of the Master's course "Biological Applications in Medicine" of the Department of Biology, National and Kapodistrian University of Athens. Title: "Principles of diagnostic approaches to genetic diseases. New technologies towards the dissection of genetic information: the example of Next Generation Sequencing» (2020).
- Teaching at the course "Genetic Approach to Diseases-Molecular Diagnostics" of the Master's course "Biological Applications in Medicine" of the Department of Biology, National and Kapodistrian University of Athens. Title: "Next Generation Sequencing» (2020).
- Teaching at the Master's course "Surgical Oncology of the Digestive tract" of the Medical School, Aristotle University of Thessaloniki. Title: "Biology of Gastric Cancer» (2021).

E. PERSONAL SKILLS

Languages

English: First Certificate in English, University of Cambridge (1997)

German: Zertifikat, Goethe Institute (1998)

Italian: Basic knowledge, Seminars (2012)

Computational skills

File management, Word processing (MS Word), Spreadsheets (MS Excel), Internet services (MS Internet Explorer, MS Outlook Express), Presentations (MS Power Point), Webpage design, Basic knowledge of the R programming language (Getting started with R – Coursera online course, R programming A-Z – Udemy online course)