

PERSONAL INFORMATION

Surname: Valmas **Name:** Alexandros **Date of Birth:** 06/09/1990
Place of Residence: Athens, **Nationality:** Greek
Address - Contact:, Mesogeion 24, Marousi, Athens, Greece **Tel.** +30 6979849595
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MOBILITY

- 12.2019 - 02.2021 Research Team Member:** Structural studies of a polyphenol oxidase with applications in the bioremediation of polluted waters / **PI: Ass. Prof Maria Dimarogona**
Laboratory of Structural Biology and Biotechnology, Dept of Chem. Engineering, UPAT
- 06.2012 - 12.2019 Research Team Member:** Dr. Valmas has conducted several experiments and diffraction data collections in a number of large scale facilities and institutes ([ESRF](#), [SLS](#), [BESSY II](#), [AFMB](#)) familiarizing with technological advances, for a period exceeding 3 months in total.
- 06.2015 - 07.2015 Traineeship:** Polymorph modification of microcrystalline proteins upon humidity variation / **PI: Dr. Detlef Beckers & Dr. Gwilherm Nénert**
R&D Department of [Malvern Panalytical](#), Almelo, Netherlands
- 09.2014 - 12.2014 Traineeship:** Development of a 3D imaging technique towards optimization of diffraction data derived from protein crystals / **PI: Dr Jonathan Wright, Scientist in charge of ID11 beamline**
ID11 beamline/European Synchrotron Radiation Facility (ESRF), Grenoble, France

CURRENT POSITION(S)

03.2022 - today **Clinical Research Associate / [Win Medica S.A.](#)**
& Collaborating researcher, Biochemistry, Structural Biology & Crystallography Group,
Department of Biology, University of Patras, Greece

PREVIOUS POSITION(S)

- 09.2011–02.2021** **Research Team Member / Biochemistry, Structural Biology & Crystallography Group (BSCG) / PI: Irene Margiolaki, Assoc. Prof.** Dept of Biology. UPAT
- 12.2019-02.2021** **Research Team Member, “Structural studies of a polyphenol oxidase with applications in the bioremediation of polluted waters”/PI: Maria Dimarogona, Ass. Prof**
 Laboratory of Structural Biology and Biotechnology, Dept of Chem. Engineering, UPAT

EDUCATION

- 06.2015 - 11.2020** **Ph.D.** Dept of Biology, UPAT (PI: Irene Margiolaki, Assoc. Prof.)
Thesis Title: “Combinational use of X-ray Techniques for Structural Characterization of Biological Macromolecules of Pharmaceutical Interest” Grade 10/10
Master Of Science (M.Sc) in Biotechnology Dept. of Biology, UPAT.
- 10.2012 - 06.2015** **Thesis Title:** “[Powder Diffraction & Drug Development: Structural characterization of new insulin polymorphs and virus protein domains](#)”. Grade 10/10
Bachelor’s Degree (B.Sc) in Biology, Dept of Biology, UPAT.
- 09.2008 - 09.2012** **Thesis Title:** “Expression, purification, and preliminary structural characterization of the non-structural protein 3 (nsP3) macro domain from the Mayaro virus (MAYV)”. Grade 6.74/10

LABORATORY SKILLS

X-ray diffraction (powder and single crystal) data collection, analyses and structural characterization | Protein & DNA Electrophoresis | Photometry | Fluorescence Spectroscopy | Chromatography | Crystallization of peptides and proteins (Vapor diffusion, batch crystallization) | Microseeding .

PUBLICATIONS (‡ equal contribution)

- Triandafillidis D.P., Karavassili F., Spiliopoulou M., [Valmas A.](#), *et al.*, *Acta Cryst.* **D79**, 2023, [10.1107/S2059798323001328](#).
- Spiliopoulou M., [Valmas A.](#), Triandafillidis D.P., *et al.*, *J. Appl. Cryst.* **54**, 963–975, 2021, [10.1107/S160057672100426X](#)
- [Valmas A.](#), Nikolaivits E., Dedes G., *et al.*, (2021), *AEM*, **87(11)**, e00396-21.
- Spiliopoulou M., Karavassili F., Triandafillidis D.P., [Valmas A.](#), *et al.*, *Acta Cryst.* **A77**, 2021, [10.1107/S2053273321001698](#)
- Pournara A.D., Rapti S., [Valmas A.](#), *et al.*, *J. Mater. Chem.* **A9**, 3379-3387, 2021, [10.1039/D0TA11653J](#)
- Spiliopoulou M., Triandafillidis, D.P., [Valmas A.](#), *et al.*, *Crystal Growth & Design*, **20(12)**, 8101-8123, 2020, [10.1021/acs.cgd.0c00939](#)
- Lahey-Rudolph J.M., Schönherr R., Jeffries C.M., Blanchet C.E., Boger J., Ferreira Ramos A.S., Riekehr W.M., Triandafillidis D.P., [Valmas A.](#), *et al.*, *J. Appl. Cryst.*, **53**, 1169-1180, 2020,

[10.1107/S1600576720010687](https://doi.org/10.1107/S1600576720010687)

8. Triandafillidis DP., Parthenios N., Spiliopoulou M, **Valmas A.**, *et al. Acta Cryst. D76, 1065-1079*, 2020, [10.1107/S205979832001195X](https://doi.org/10.1107/S205979832001195X)
9. Karavassili F[‡], **Valmas A.**[‡], Dimarogona M., *et al., Acta Cryst. D76*, 366-374, 2020, [10.1107/S2059798320002545](https://doi.org/10.1107/S2059798320002545)
10. Spiliopoulou M., **Valmas A.**, Triandafillidis D.P., *et al., Crystals*, **10**(2), 54, 2020, [10.3390/cryst10020054](https://doi.org/10.3390/cryst10020054)
11. Fili S[‡], **Valmas A.**[‡], Spiliopoulou M., *et al., Acta Cryst. B75*, 611-620, 2019, [10.1107/S2052520619006012](https://doi.org/10.1107/S2052520619006012)
12. Logotheti S[‡], **Valmas A.**[‡], Trambari S., *et al., J. Appl. Cryst.* **52**, 816-827, 2019, [10.1107/S1600576719009919](https://doi.org/10.1107/S1600576719009919)
13. Trambari S[‡], **Valmas A.**[‡], Logotheti S., *et al., J. Appl. Cryst.* **51**(6), 1671–1683, 2018, [10.1107/S1600576718013936](https://doi.org/10.1107/S1600576718013936)
14. **Valmas A.**, Fili S., Nikolopoulos N., *et al., Z. Kristallogr.* **233**, 309– 316, 2017, [10.1515/zkri-2017-2091](https://doi.org/10.1515/zkri-2017-2091)
15. Karavassili, F., **Valmas, A.**, Fili, S., *et al., Biomolecules*, **7**, 63, 2017, [10.3390/biom7030063](https://doi.org/10.3390/biom7030063)
16. Fili S., **Valmas A.**, Christopoulou M., *et al., Acta Cryst. F72*, 877-884, 2016, [10.1107/S2053230X16018513](https://doi.org/10.1107/S2053230X16018513)
17. Fili S., **Valmas A.**, Norrman M., *et al., IUCrJ.* **2**, 534–544, 2015, [10.1107/S2052252515013159](https://doi.org/10.1107/S2052252515013159)
18. **Valmas A.**, Magioug K., Fili S., *et al., Acta Cryst. D71*, 819-828, 2015, [10.1107/S1399004715001376](https://doi.org/10.1107/S1399004715001376)
19. Triandafillidis D.P., Karavassili F., Spiliopoulou M., **Valmas A.**, *et al. Acta Cryst. D* (proofs available).

Submitted/Under Submission

20. Skipitari M., Karavassili F., **Valmas A.**, Kalaitzopoulou E., Papadea P., Spiliopoulou M., Triandafillidis D., Margiolaki I. and Georgiou C.D., Evaluation of insulin oxidative modifications by a novel ROS generating system, 2021, under submission, *Free Radical Biology and Medicine* (IF 6.17)

in Conferences

1. **Valmas A.**, Dedes G., Dimarogona M., *Proceedings*, 66(1), **2020**, [10.3390/proceedings2020066010](https://doi.org/10.3390/proceedings2020066010)
2. Beckers D., Degen T., Nénert G., Saslis S., Logotheti S., Karavassili F., **Valmas A.**, *et al., Acta Cryst. A73*, C1142, 2017, [10.1107/S2053273317084327](https://doi.org/10.1107/S2053273317084327)
3. Trittibach R., Nénert G., Beckers D., Degen T., Logotheti S., Karavassili F., **Valmas A.**, *et al., Acta Cryst. A72*, s245, 2016, [10.1107/S2053273316096297](https://doi.org/10.1107/S2053273316096297)
4. Degen T., Nénert G., Beckers D., Saslis, S., Logotheti S., Karavassili F., **Valmas A.**, *et al.*, (conference paper)” Conference (08/16): [The 66th Annual Meeting of the American Crystallographic Association \(ACA\)](#)
5. Beckers D., Degen T., Nénert G., Karavassili F., **Valmas A.**, *et al., Acta Cryst. A71*, s510, 2015, [10.1107/S2053273315092451](https://doi.org/10.1107/S2053273315092451)
6. Beckers D., Degen T., Sadki M., Vermeulen A., **Valmas A.**, *et al.*, “A fresh view on the Finger, Cox & Jephcoat (FCJ) asymmetry model (Conference Paper)” Conference (08/15): [Denver X-ray conference](#).

CONFERENCES/WORKSHOPS/etc.

Oral Presentations

- [69th Panhellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology \(HSBMB\)](#) (23-25/11/2018, Imperial Hotel, Larissa, Greece). **Title:** “Humidity Induced Structural Changes on Hen Egg White Lysozyme (HEWL) polycrystalline precipitates.”
- [4th International Scientific Meeting and 5th MC Meeting of COST Action CM1306 Understanding Movement and Mechanism in Molecular Machines](#) (21-24/03/2018, Zagreb, Croatia). **Title:** “Polymorph modification of microcrystalline proteins upon humidity variation.”
- [18th Conference of Medicinal Chemistry: Drug Discovery and Design](#) (30-31/10/17, Archeological Museum of Patras). **Title:** “Macromolecular XRPD & Protein-based drug screening: Achievements & Perspectives.”
- [EPDIC15 The European Powder Diffraction Conference](#) (12-15/06/16, Bari, Italy). **Title:** “Protein-based drug screening: The case of human insulin.”
- [EMBO Practical Course: High-throughput protein production and crystallization](#) (29/06-08/07/15, Marseille France). “Structural characterization of protein macromolecules via X-ray powder diffraction: The case of Human Insulin and Protease 3C of Coxsackievirus B3“,

Posters

- [10th International Conference of the Hellenic Crystallographic Association](#) (15-17/10/21, Athens, Greece) **Title:** “Insulin polymorphism induced by polyphenols: New crystal forms and advances in macromolecular powder diffraction” **Best Poster Award**
- [34th annual Panhellenic Conference on Solid State Physics and Materials Science](#) (11-14/09/19, Patras). **Title:** “Macromolecular Powder Diffraction: Ready for Genuine Biological Problems”
- [FEBS practical course Biomolecules in Action II](#) (23–28/06/19, Hamburg). **Title:** “Macromolecular powder diffraction & structure analysis: Case study of a peptide, Octreotide” **Best Poster Award.**
- [9th International Conference of the Hellenic Crystallographic Association](#) (5-7/10/18, Patras, Greece) **Title:** “X-ray Powder Diffraction on Macromolecular: Recent Achievements & Perspectives”
- [IUCr 2017: 24th Congress and General Assembly of the International Union of Crystallography](#) (21-28/08/17, Hyderabad, India). **Title:** “Humidity-induced phase transitions of HEWL investigated on a lab XRD system”

- [EPDIC15: The European Powder Diffraction Conference](#) (12-15/06/16, Bari, Italy). **Title:** “Structural determination of Coxsackievirus B3 protease 3C via XRPD”. **«Young Scientist Best Poster» award**
- [EPDIC14: The European Powder Diffraction Conference](#) (15-18/06/14, Aarhus, Denmark). **Title:** “Novel crystalline phase and first order phase transitions of human insulin complexed with phenol-derivatives.”
- [EPDIC13: The European Powder Diffraction Conference](#) (28-31/10/12, Grenoble, France). **Title:** “Preliminary insights into non-structural protein 3 macro domain of the Mayaro virus by powder diffraction”

MEMBERSHIPS & REVIEWING ACTIVITIES

- 2018-2020** Member of the [Hellenic Society for Biochemistry and Molecular Biology \(HSBMB\)](#)
- 2017-2020** Member of the [Hellenic Crystallographic Association \(HeCrA\)](#)
- 11/2016** Co-founder of the [Hellenic Crystallographic Association \(HeCrA\)-Young Researchers Team](#)

TEACHING ACTIVITIES

- 2013-2020** Tutoring and teaching assistance on “**Protein Biochemistry**” (undergraduate laboratory courses), Department of Biology, University of Patras, Greece
- 2013-2020** Tutoring and teaching assistance on “**Cell Biology**” (undergraduate laboratory courses), Department of Biology, University of Patras, Greece
- 2015-2018** Tutoring and teaching assistance on “**Genetics**” (undergraduate laboratory courses), Department of Biology, University of Patras, Greece
- 2014-2020** Designing and implementation of schools on protein crystallography for high-school students.

FELLOWSHIPS and AWARDS

- 08/2017-11/2018** "ELIDEK/H.F.R.I" scholar upon “[1st Call for H.F.R.I. Scholarships to PhD Candidates](#)”, Department of Biology, UPAT.
Project Title: Combinational use of X-ray Techniques for Structural Characterization of Biological Macromolecules of Pharmaceutical Interest (Scholarship Code: 2467)
- 02/2015-07/2015** COST Action (CM1306)
Project Title: Polymorph modification of microcrystalline proteins upon humidity variation.
"Constantin Carathéodory" scholar, Department of Biology, University of Patras, Greece.
- 12/2012-11/2013** **Project Title:** Structural characterization of protein of pharmaceutical interest and viruses towards development of new therapeutics (D.211/D.237.005).

RESEARCH GRANTS

Project Title	Funding source	Period	Role
1. “Structural studies of a polyphenol oxidase with applications in the bioremediation of polluted waters” PI: Maria Dimarogona, Ass. Prof. at Dept of Chem. Engineering, UPAT	Co-financed by Greece and the European Social Fund (ESF) through the Operational Programme «Human Resources Development, Education and Lifelong Learning 2014-2020» (MIS 5047137).	12/2019 - 02/2021	Member of research team
2. “Zr ⁴⁺ MOFs with Exceptional Capability for Removal of Toxic Ions from Aqueous Media” PI: Emmanouil Manos, Assoc. Prof. Dept of Chemistry, University of Ioannina	Financed by the Hellenic Foundation for Research and Innovation (H.F.R.I.) under the “First Call for H.F.R.I. Research Projects to support Faculty members and Researchers and the procurement of high-cost research equipment grant” (Project Number: 348)	06/2020 - 12/2020	Member of research team
3. “Diffraction and NMR experimental platform for drug screening” PI: Irene Margiolaki, Assoc. Prof., Dept of Biology University of Patras	Co-financed by the European Social Fund in collaboration with Greek State, under the ‘ARISTEIA II’ Action of the ‘Operational Program Education And Lifelong Learning’ (MIS Code 4659)	02/2015 - 10/2015	Member of research team + Project management

SCIENTIFIC ACHIEVEMENTS

1. Protein Data Bank (PDB) structure submissions: [6VC1](#), [6GNQ](#), [6TC2](#), [6Z1S](#), [7QAC](#)
2. Organization of Conferences (Local Organizing Committee Member):
 - “[9th International Conference of the Hellenic Crystallographic Association](#)” (5-7 October '18, Conference and Cultural Center, University of Patras)
 - “[The 2nd Spring Meeting of HeCrA's Young Researchers](#)” (5-6 May '18, University of Thessaly, Larissa)
 - “[The 1st Spring Meeting of HeCrA's Young Researchers](#)” (27-28/05/17, National Hellenic Research Foundation, Athens).
 - “[Second Research Coordination Meeting \(RCM\) on Utilization of Accelerator – Based](#)”

[Real – Time in Investigation of Material with High Technological Importance](#)” (24-27/09/13, University Of Patras, Greece) • [“International Workshop: Powder & Electron Crystallography](#)” (8-12 July ‘13, University Of Patras, Greece) • [“International Workshop: Fundamentals of Crystallography](#)” (1-7 April ‘13, University Of Patras, Greece)

3. Accepted with full scholarship to participate in “The International School of Crystallography (ISCoC)- Structural Drug Design 2020: Biology, Chemistry and Computers” (school director: [Sir Tom Blundell](#)) which held annually in Erice, Italy (postponed due to COVID-19 pandemic until 06/2023).