

# Evangelia D. CHRYSINA

Research Director at the Institute of Chemical Biology

National Hellenic Research Foundation

Docent Professor in Medical Science – Biomedicine, Örebro University, Sweden

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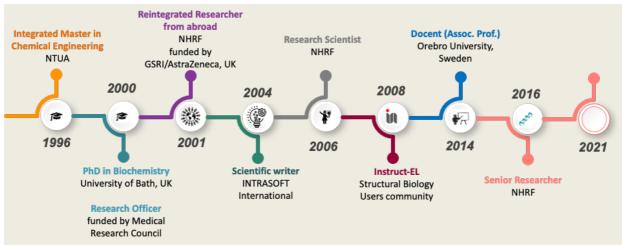
Google scholar: https://scholar.google.com/citations?hl=en&user=hUTwx40AAAAJ

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Url: www.eie.gr/nhrf/institutes/icb/research\_groups/ChrysinaEvangelia\_group\_en.html



#### **Timeline**



## Education

02.1997 - 01.2000 Department of Biology & Biochemistry – University of Bath, Bath, UK

Sup.: Prof. K.R. Acharya, Int. Examiner: Prof. R. Eisenthal, Ext. examiner: Prof. M. Adams Thesis title: "Structural studies of α-Lactalbumin and retinol binding protein"

**PhD in Biochemistry** 

09.1991 - 06.1996 School of Chemical Engineering - NTUA, Athens Greece

<u>Thesis title</u>: "Design of glycogen phosphorylase inhibitors", performed at NHRF Joint supervisors: Dr N.G. Oikonomakos/NHRF & Prof. F. Kolisis/NTUA

**Diploma & Integrated Master in Chemical Engineering** (five years

undergraduate studies)

1992, 1989 Proficiency / First Certificate in English, Univ. of Cambridge, UK

# Fellowships / Awards

Fellowships: for short visits to: **Royal Society (London, UK)**- Inst. of Cancer Research London, UK (July 2003); **Royal Society (London, UK)**- Lab. of Molecular Biophysics, Univ. of Oxford, UK (June 2002); **Wellcome Trust, UK**- Laboratory of Molecular Biophysics, Univ. of Oxford, UK (Dec. 2001); **Marie-Curie Research Fellowship**, from European Commission for 3 years postgraduate studies, FP4, Agriculture & Fisheries FAIRCT965075 in the Univ. of Bath, UK (Dec 1996)

Prizes: Paraskevi's Gardiki-Kouidou prize for young scientists 1999-2000, 54<sup>th</sup> Conference of the Hellenic Society of Biochemistry & Molecular Biology, Univ. of Ioannina, Greece (October 2002); Rod Quayle prize- Best postgraduate student for the year 1999-2000 in the Dept. of Biology & Biochemistry, Univ. of Bath, UK (April 2000); Registered User of European Large Scale Facilities: CLRC Daresbury Lab., Cheshire, UK (1995-2008); PETRA III, EMBL-Hamburg Unit-Germany (1995-); Elettra SLS, Trieste-Italy (1997-); Diamond Light Source, Oxford-UK (2014-); LaserLab, Saclay, France (2014-)



## **Current Positions**

02.2023 - present	Research Director, Institute of Chemical Biology, NHRF, Greece
12.2016 - 01.2023	Senior Researcher, Institute of Chemical Biology, NHRF, Greece
03.2014- present	<b>Associate Professor (Docent) in Medical Science – Biomedicine</b> School of Medical Sciences, Örebro University (ÖRU), Sweden

## **Previous Positions**

10.2006 - 11.2016	<b>Researcher</b> , Inst. of Biology, Pharmaceutical Chemistry & Biotechnology-NHRF, Greece, <i>The position was funded by NHRF</i>
04.2006 - 12.2006	Freelance writer for Technology Marketplace, Intrasoft International S.A.
12.2004 - 09.2006	Ext. Research Associate, Inst. of Organic & Pharmac. Chemistry (IOPC), NHRF
	Public understanding of science- Volunteer research work & activities (Open Doors)
07.2001 - 11.2004	Reintegrated Researcher from abroad, IOPC-NHRF, Greece The position was funded by i) GSRT through a joined bilateral R&T programme between Greece (PI Dr NG Oikonomakos) & Cyprus (PI Prof. G. Archontis) (01.07.2001-30.09.2001), ii) The pharmaceutical industry AstraZeneca UK, Ltd (01.07.2001- 30.11.2002), iii) The GSRT, through "INTEGRATION of PhD researchers from abroad in Greece's R&T System- programme ENTER" (a grant awarded to Dr ED Chrysina- reintegrated researcher, Dr NG Oikonomakos/NHRF host, Dr R. Pauptit/ AstraZeneca UK, Ltd., Business partner, (01.12.2002- 30.11.2004)
05.2000 - 06.2001	<b>Research officer</b> , Dept. of Biology and Biochemistry, University of Bath, UK The position was funded by the Medical Research Council (MRC), UK through a grant awarded to Prof. K. Ravi Acharya, head of Structural & Molecular Biology Group
02.1997 - 01.2000	<b>PhD Researcher in Structural Biology</b> , Department of Biology and Biochemistry, University of Bath, UK  The position was funded by EC, Marie-Curie Research Fellowship, for three years, FP4-Agriculture & Fisheries FAIRCT965075 awarded to Dr ED Chrysina and Prof. K.R. Acharya
06.1995 - 07.1995	<b>Chemical Engineer Trainee</b> , VIORYL Chemical & Agricultural Industry Research S.A. (supervisor Prof. V. Dourtoglou)

## Fields of specialization

Structural Biology with emphasis on Biomedical and Biotechnological Applications.

Thematic areas: Life Sciences, Bioinformatics, Natural Sciences, Chemical Engineering and Technology.

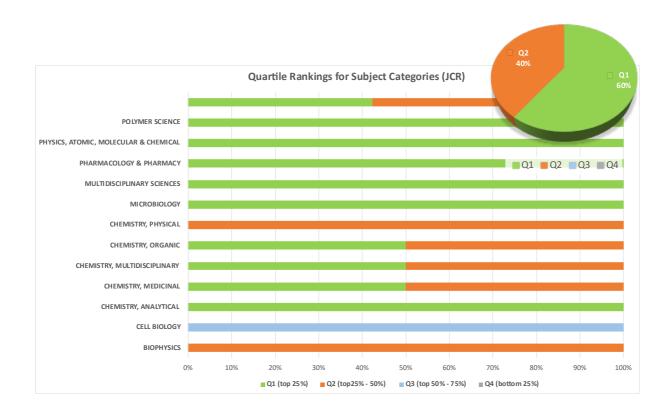
Keywords: Structural Biology, Biomedicine, Biotechnology, Biochemistry/Enzymes, Biophysics, Biocatalysts, Structural genomics-proteomics, Structure-based drug design, X-ray crystallography, Type 2 Diabetes, Structural Bioinformatics, Structure-Function Relationships, Mechanisms of enzymic action, Biochemical Engineering, Process development, Development of New Methods and Processes

# Summarized Research output -Indicators – scientific impact factors and broadness of research

- **70** peer-reviewed publications (in journals: **66**; in book chapters: **4),** in **9** first author (out of which in one with equal contribution with the first author), in **20** corresponding author; **8** of these appear as: front covers (8) or frontispiece (1) of the corresponding journal
- Google Scholar report (until 08.02.2023): h-index: 29; i10-index: 46; Number of citations: 2403
- Web of Science Citation report (until 08.02.2022): h-index: **26**; no. of citations (heterocitations): **1805** (**1608**); Average citations per item: **26.16**
- 123 no. of protein structures and complexes deposited with Protein Data Bank
- **39** Invited Lectures; **107** Announcements in conferences / symposia / workshops
- 19 Other participations in conferences; 16 Organization of conferences / symposia / workshops



# Research publications per scientific field, based on journal ranking Quartile scores (2016 – 2021)



# Front covers in peer-reviewed journals





## **Publications**

In peer-reviewed journals (■: corresponding author)

## 1996

Brandstetter, T.W., delaFuente, C., Kim, Y.H., Johnson, L.N., Crook, S., Lilley, P.M.D.Q., Watkin, D.J., Tsitsanou, K.E., Zographos, S.E., <u>Chrysina, E.D.</u>, Oikonomakos, N.G. and Fleet, G.W.J. (1996). Glucofuranose analogues of hydantocidin. *Tetrahedron 52*, 10721-10736. (IF<sub>1996</sub> 2.232)

## 1997

Zographos, S.E., Oikonomakos, N.G., Tsitsanou, K.E., Leonidas, D.D., <u>Chrysina, E.D.</u>, Skamnaki, V.T., Bischoff, H., Goldmann, S., Watson, K.A. and Johnson, L.N. (1997). The structure of glycogen phosphorylase *b* with an alkyl-dihydropyridine-dicarboxylic acid compound, a novel and potent inhibitor. *Structure 5*, 1413-1425. (IF<sub>1997</sub> 7.633)

PDB ID: 2AMV

## 1999

3. <u>Chrysina, E.D.,</u> Brew, K., Acharya, K.R. (1999). Structural studies on bovine a-Lactalbumin. Acta Crystallogr. A55, 367, Sup.5, P12.04.134

#### 2000

 Chrysina, E.D., Brew, K. and Acharya, K.R. (2000). Crystal structures of apo- and holo-bovine α-Lactalbumin at 2.2 Å resolution reveal an effect of calcium on inter-lobe interactions. *J. Biol. Chem. 275*, 37021-37029. (IF<sub>2000</sub> 6.62)

**PDB IDS**: <u>1F6R</u>, <u>1F6S</u>

#### 2001

 Greene, L.H., <u>Chrysina, E.D.</u>, Irons, L.I., Papageorgiou, A.C., Acharya, K.R. and Brew K. (2001). Role of conserved residues in structure and stability: Tryptophans of human serum retinol-binding protein, a model for the lipocalin superfamily *Protein Sci. 10*, 2301-2316. (IF<sub>2001</sub> 3.472)

PDB IDS: 1JYD, 1JYJ

#### 2002

 Oikonomakos, N.G., Kosmopoulou, M., Zographos, S.E., Leonidas, D.D., <u>Chrysina, E.D.</u>, Somsák L., Nagy, V., Praly, J.P., Docsa, T., Tóth, A. and Gergely, P. (2002). Binding of N-acetyl-N'-β-D-glucopyranosyl urea and N-benzoyl-N'-β-D-glucopyranosyl urea to glycogen phosphorylase b-Kinetic and crystallographic studies. *Eur. J. Biochem. 269*, 1684-1696. (IF<sub>2002</sub> 2.999) FRONT COVER



PDB IDS: <u>1K06</u>, <u>1K08</u>, <u>1KTI</u>

Cook, A., Lowe, E.D., <u>Chrysina, E.D.</u>, Skamnaki, V.T., Oikonomakos, N.G. and Johnson, L.N. (2002) Structural studies on phospho-CDK2/cyclin A bound to nitrate, a transition state analogue: Implications for the protein kinase mechanism. *Biochemistry 41*, 7301-7311. (IF<sub>2002</sub> 4.064)

**P**DB **I**D: <u>1GY3</u>

## 2003

 Leonidas, D.D., Swamy, B.M., Bhat, A.G., Inamdar, S.R., Kosmopoulou, M.N., <u>Chrysina, E.D</u>. and Oikonomakos, N.G. (2003). Crystallization and preliminary X-ray crystallographic analysis of *Sclerotium rolfsii* lectin. *Acta Crystallogr. D59*, 363-365. (IF<sub>2003</sub> 2.208)

Protein & Science

Protein 9 Science



9. Oikonomakos, N.G., <u>Chrysina</u>, <u>E.D</u>., Kosmopoulou, M.N. and Leonidas, D.D. (2003). Crystal structure of rabbit muscle glycogen phosphorylase a in complex with a potential hypoglycaemic

drug at 2.0 Å resolution. *BBA-Proteins-Proteom.* 1647, 325-332. (IF<sub>2003</sub> 1.602)

PDB IDS: <u>1LWN</u>, <u>1LWO</u>

Pinotsis, N., Leonidas, D.D., <u>Chrysina, E.D</u>., Oikonomakos, N.G. and Mavridis, I.M. (2003). The binding of β- and γ-cyclodextrins to glycogen phosphorylase b: Kinetic and crystallographic studies. *Protein Sci.* 12, 1914-1924. (IF<sub>2003</sub> 3.787) FRONT COVER

PDB IDS: 1P29, 1P2B, 1P2D, 1P2G

Leonidas, D.D., Chavali, G.B., Oikonomakos, N.G., <u>Chrysina, E.D.</u>, Kosmopoulou, M.N., Vlassi, M, Frankling, C. and Acharya, K.R. (2003). High-resolution crystal structures of ribonuclease A complexed with adenylic and uridylic nucleotide inhibitors. Implications for structure-based design of ribonucleolytic inhibitors. *Protein Sci. 12*, 2559-2574. (IF<sub>2003</sub> 3.787) FRONT COVER

PDB IDS: <u>100F</u>, <u>100H</u>, <u>100M</u>, <u>100N</u>, <u>1000</u>

Chrysina, E.D., Oikonomakos, N.G., Zographos, S.E., Kosmopoulou, M.N., Bischler,
 N., Leonidas, D.D., Kovács, L., Docsa, T., Gergely, P. and Somsák, L. (2003). Crystallographic studies on α- and β-D-glucopyranosyl formamide analogues, inhibitors of glycogen phosphorylase. *Biocatal. Biotransfor.* 21, 233-242. (IF<sub>2003</sub> 1.085)

**PDB IDS:** <u>1P4G</u>, <u>1P4H</u>, <u>1P4J</u>

PDB ID: 1UZU

2004

- 13. Kosmopoulou, M.N., Leonidas, D.D., <u>Chrysina, E.D</u>., Bischler, N., Eisenbrand, G., Sakarellos C.E., Pauptit, R. and Oikonomakos, N.G. (2004). Binding of the potential antitumour agent indirubin-5'-sulphonate at the inhibitor site of rabbit muscle glycogen phosphorylase b. Comparison with ligand binding to pCDK2-cyclin A complex. *Eur. J. Biochem. 271*, 2280-2290. (IF<sub>2004</sub> 3.22)
- 14. Ganotidis, M.H., Elemes, Y., Alexopoulos, C., Sakarellos, C., Kosmopoulou, M.N., <u>Chrysina, E.D.</u>, Leonidas, D.D., Oikonomakos, N.G. (2004). Glycogen phosphorylase inhibitors as potential drugs for the treatment of type 2 diabetes. *J. Peptide Sci. 10*, S2, Supplement: 3<sup>rd</sup> International and 28<sup>th</sup> European Peptide Symposium, September 5–10, 2004; Prague, Czech Republic, 244-244. (IF<sub>2004</sub> 1.57)
- 15. Skouridou, V., <u>Chrysina, E.D</u>., Stamatis, H., Oikonomakos, N.G. and Kolisis, F.N. (2004). Kinetic and modelling studies on the lipase catalysed enantioselective esterification of (±)-perillyl alcohol. *J. Mol. Catal. B-Enzym. 29*, 9-12. (IF<sub>2004</sub> 1.42)

2005

- Chrysina, E.D., Kosmopoulou, M.N., Kardakaris, R., Bischler, N., Leonidas, D.D., Kannan, T., Loganathan, D. and Oikonomakos, N.G (2005). Binding of β-D-glucopyranosyl bismethoxyphosphoramidate to glycogen phosphorylase b: kinetic and crystallographic studies. *Bioorg. Med. Chem.* 13, 765-772. (IF<sub>2005</sub> 2.286)
   PDB ID: 1XC7
- 17. **Chrysina, E.D.**, Kosmopoulou, M.N., Tiraidis, C., Kardakaris, R., Bischler, N., Leonidas, D.D., Hadady, Z., Somsak, L., Docsa, T., Gergely, P. and Oikonomakos, N.G. (2005). Kinetic and crystallographic studies on 2-(*β*-D-glucopyranosyl-5-methyl-1, 3, 4-oxadiazole, –benzothiazole, and –benzimidazole, inhibitors of muscle glycogen phosphorylase *b*. Evidence for a new binding site. **Protein Sci. 14,** 873-888. (IF<sub>2005</sub> 3.618)

PDB IDS: 1XKX, 1XL0, 1XL1



- Kosmopoulou, M.N., Oikonomakos, N.G., <u>Chrysina, E.D.</u>, Leonidas, D.D., Kostas, I.D., Wendt, K.U., Klabunde, T., Defossa, E. (2005) Crystallographic studies on acyl ureas, a new class of inhibitiors of glycogen phosphorylase. *Acta Crystallogr. A61*, C182
- 19. Oikonomakos, N.G., Kosmopoulou, M.N., <u>Chrysina, E.D</u>., Leonidas, D.D., Kostas, I.D., Wendt, K.U., Klabunde, T., and Defossa, E. (2005) Crystallographic studies on acyl ureas, a new class of glycogen phosphorylase inhibitors, as potential antidiabetic drugs. *Protein Sci.* 14, 1760-1771. (IF<sub>2005</sub> 3.618)

PDB IDS: 1WUT, 1WUY, 1WV0, 1WV1

- Archontis, G., Watson, K.A., Xie, Q., Andreou, G., <u>Chrysina, E.D</u>., Zographos, S.E., Oikonomakos, N.G., and Karplus, M. (2005) Glycogen phosphorylase inhibitorsQ A free energy perturbation analysis of glucopyranose spirohydantoin analogues. *Proteins: Structure, Function, and Bioinformatics 61*, 984-998. (IF<sub>2005</sub> 4.684)
- 21. \*\*Watson, K.A., \*\*Chrysina, E.D., Tsitsanou K.E., Zographos, S.E., Gregoriou, M., Archontis, G., Fleet, G.W.J., and Oikonomakos, N.G. (2005) Kinetic and crystallographic studies of glucopyranose spirohydantoin and glucopyranosylamine analogues inhibitors of glycogen phosphorylase. \*\*Proteins: Structure, Function, and Bioinformatics 61, 966-983. (\*\*EQUAL CONTRIBUTION) (IF2005 4.684)

PDB IDS: <u>1FS4</u>, <u>1FTQ</u>, <u>1FTW</u>, <u>1FTY</u>, <u>1FU4</u>, <u>1FU7</u>, <u>1FU8</u>

Kosmopoulou, M.N., Leonidas, D.D., <u>Chrysina</u>, <u>E.D</u>., Eisenbrand, G., and Oikonomakos, N.G. (2005) Indirubin-3'-aminooxy-acetate inhibits glycogen phosphorylase by binding at the inhibitor and the allosteric site. Broad specificities of the two sites. *Letters in Drug Design & Discovery 2*, 377-390. (IF<sub>2005</sub> 0.57)

FRONT COVER
PDB ID: 1Z62

2006

23. Petsalakis, E.I., <u>Chrysina, E.D.</u>, Tiraidis, C., Hadjiloi, T., Leonidas, D.D., Oikonomakos, N.G., Aich, U., Varghese, B. and Loganathan, D. (2006). Crystallographic studies on N-azidoacetyl-β-D-glucopyranosylamine, an inhibitor of glycogen phosphorylase: comparison with N-acetyl-β-D-glucopyranosylamine. *Bioorg Med Chem*, 5316-5324. (IF<sub>2006</sub> 2.624)

PDB ID: 2FFR

- 24. Hadjiloi, T., Tiraidis, C., <u>Chrysina, E.D</u>., Leonidas, D.D., Oikonomakos, N.G., Tsipos, P. and Gimisis, T. (2006). Binding of oxalyl derivatives of β-D-glucopyranosylamine to muscle glycogen phosphorylase b. *Bioorg. Med. Chem.*, 3872-3882. (IF<sub>2005</sub> 2.286) FRONT COVER
  PDB IDs: 2F3P, 2F3O, 2F3S, 2F3U
- 25. Anagnostou, E., Kosmopoulou, M.N., **Chrysina, E.D.**, Leonidas, D.D., Hadjiloi, T., Tiraidis, C., Györgydeák, Z., Somsák, L., Docsa, T., Gergely, P., Kolisis, F.N., and Oikonomakos, N.G. (2006) Crystallographic studies on two bioisosteric analogues, N-acetyl-β-D-glucopyranosylamine and N-trifluoracetyl-β-D-glucopyranosylamine, potent inhibitors of muscle glycogen phosphorylase.

**Bioorg. Med. Chem. 14,** 181-189. (IF<sub>2005</sub> 2.286) **FRONT COVER** 

**P**DB **I**DS: <u>1WW2</u>, <u>1WW3</u>



Letters in Drug Design & Discovery





2007

He, L., Zang, Y.Z., Tanoh, M., Chen, G.-R., Praly, J.-P., <u>Chrysina, E.D.</u>, Tiraidis, C., Kosmopoulou, M.N., Leonidas, D.D. and Oikonomakos, N.G. (2007). In the search for glycogen phosphorylase inhibitors: synthesis of C-D-glycopyranosyl-hydroquinones and -benzoquinones. Inhibition of and binding to glycogen phosphorylase in the crystal. *Eur. J. Org. Chem.* 596-606. (IF<sub>2007</sub> 2.914)

PDB IDs: 2FFT, 2FF5

2008

27. Alexacou, K.M., Hayes, J.M., Tiraidis, C., Zographos, S.E., Leonidas, D.D., <u>Chrysina, E.D.</u>, Archontis, G., Oikonomakos, N.G., Paul, J.V., Varghese, B., Loganathan, D. (2008). Crystallographic and computational studies on 4-phenyl-N-(b-D-glucopyranosyl)-1H-1,2, 3-triazole-1-acetamide, an inhibitor of glycogen phosphorylase: Comparison with a-D-glucose, N-acetyl-β-D-glucopyranosylamine and N-benzoyl-N'-β-D-glucopyranosyl urea binding. *Proteins: Structure, Function, and Bioinformatics 71*, 1307-23. (IF<sub>2008</sub> 3.419)

PDB IDs: 2PYD, 2PYI

- 28. Dimarogona, M., Topakas, E., Christakopoulos, P., <u>□Chrysina, E.D</u>. (2008). Structural studies of a new alkaline xylanase (*Fo*Xyn10a) from *Fusarium oxysporum* F3. *FEBS J. 275*, 161. (IF<sub>2008</sub> 3.139)
- Somsák, L., Czifrák, K., Tóth, M., Bokor, E., <u>■Chrysina, E.D.</u>, Alexacou, K.M., Hayes, J.M., Tiraidis, C., Lazoura, E., Leonidas, D.D., Zographos, S.E., Oikonomakos, N.G. (2008). New Inhibitors of Glycogen Phosphorylase as Potential Antidiabetic Agents. *Curr. Med. Chem.* 15, 2933-2983. (IF<sub>2008</sub> 4.823)

2009

30. <u>■Chrysina, E.D.</u>, Bokor, E., Alexacou, K-M., Charavgi, M-D., Oikonomakos, G.N., Zographos, S.E., Leonidas, D.D., Oikonomakos, N.G., \*Somsák, L. (2009). Amide-1,2,3-triazole bioisosterism: the glycogen phosphorylase case. *Tetrahedron Asymmetry 20*, 733-740. (IF<sub>2009</sub> 2.625)

PDB IDs: 3G2I, 3G2H, 3G2K, 3G2J, 3G2L, 3G2N

31. Benltifa, M., Hayes, J., Vidal., S. Gueyrard, D., Goekjian, P.G., \*Praly, J-P, Kizilis, G., Tiraidis, C., Alexacou, K-M., <u>Chrysina, E.D.</u>, Zographos, S.E., Leonidas, D.D., Archontis, G., Oikonomakos, N.G. (2009). Glucose-based spiro-isoxazolines: A new family of potent glycogen phosphorylase inhibitors. *Bioorg. Med. Chem.* 17, 7368-7380. (IF<sub>2009</sub> 2.822)

PDB IDs: 2QRM, 2QRQ, 2QRP, 2QRH, 2QRG

2010

- 32. Zhong, S.J., Alexacou, K.M., Chara vgi, M.A., Tiraidis, C., Zographos, S.E., Leonidas, D.D, **Chrysina, E.D.**, Oikonomakos, N.G., MacKerell, A.D. (2010). Glycogen phosphorylase inhibitor identification targeting the inhibitor binding site using virtual screening and experimental validation. Abstracts of Papers of the *Amer. Chem. Soc., 240*, 265-COMP
- 33. Felfoldi, N., Toth, M., <u>Chrysina, E.D</u>., Charavgi, M.-D., Alexacou, K.-M., Somsak, L., (2010). Synthesis of new glycosyl biuret and urea derivatives as potential glycoenzyme inhibitors. *Carbohydrate Res. 345*, 208-213. (IF<sub>2010</sub> 2.22)
- 34. Alexacou, K.M., Tenchiu Deleanu, A.C., <u>Chrysina, E.D</u>., Charavgi, M.D., Kostas, I.D., Zographos, S.E., Oikonomakos, N.G., Leonidas, D.D. (2010). The binding of -D-glucopyranosylthiosemicarbazone derivatives to glycogen phosphorylase: A new class of inhibitors. *Bioorg. Med. Chem.* 18, 7911-7922. (IF<sub>2010</sub> 2.978)

**PDB IDs**: <u>3NC4</u>, <u>3MRV</u>, <u>3MT8</u>, <u>3MT9</u>, <u>3MRT</u>, <u>3MT7</u>, <u>3MRX</u>, <u>3MS2</u>, <u>3MS4</u>, <u>3MS7</u>, <u>3MQF</u>, <u>3MTA</u>, <u>3MTD</u>, <u>3MTB</u>, <u>3MSC</u>, <u>3NP9</u>, <u>3NP7</u>, <u>2NPA</u>, <u>3S0J</u>

Current

Medicinal Chemistry



35. <u>■Chrysina, E.D.</u> The prototype of glycogen phosphorylase (2010) *Mini Rev. Med. Chem. 10*, 1093-1101. (IF<sub>2010</sub> 3.03)

2011

- 36. Kun, S., Nagy, G.Z., Tóth, M, Czecze L., Van Nhien, A.N., Docsa, T., Gergely, P., Charavgi, M.D., Skourti, P.V., **Chrysina, E.D**., Patonay, T., Somsák, L. (2011) Synthesis of variously coupled conjugates of D-glucose, 1,3,4-oxadiazole, and 1,2,3-triazole for inhibition of glycogen phosphorylase. *Carbohydrate Res.* 346, 1427-1438. (IF<sub>2011</sub> 2.332)
- 37. <u>■Chrysina, E.D.</u>, Chajistamatiou, A., Chegkazi, M. (2011) From structure-based to knowledge-based drug design through x-ray protein crystallography: sketching glycogen phosphorylase binding sites. *Curr. Med. Chem.* 18, 2620-2629. (IF<sub>2011</sub> 4.94) FRONT COVER.
- Alexacou, K.-M., Zhang, Y.Z., Praly, J.-P., Zographos, S.E., <u>Chrysina, E.D.,</u> Oikonomakos, N.G., Leonidas, D.D. (2011). Halogen-substituted (C-β-D-glucopyranosyl)-hydroquinone regioisomers: Synthesis, enzymatic evaluation



PDB IDs: <u>3NP9</u>, <u>3NP7</u>, <u>2NPA</u>, <u>3S0J</u>

2012

- 39. Azay-Milhau, J., Duret, C., Vidal, S., Goyard, D., Balzarin, S., Leroy, J., Tournier, M., Tousch, D., Ferrare, K., Maurel, P., <u>Chrysina, E. D.</u>, Petit, P., Praly, J.P. (2012) A glycogen phosphorylase inhibitor developed as a potential antidiabetic compound, *Fundamental & Clinical Pharmacology 26* S1, 94. (IF<sub>2012</sub> 1.78)
- 40. Nagy, V., Felföldi, N., Kónya, B., Praly, J.-P., Docsa, T., Gergely, P., 

  <u>□Chrysina, E.D.</u>, Tiraidis, C., Kosmopoulou, M.N., Alexacou, K.-M., Konstantakaki, M., Leonidas, D.D., Zographos, S.E., Oikonomakos, N.G., Kozmon, S., Tvaroška, I., Somsák, L. (2012) N-(4-Substituted-benzoyl)-N'-(β-D-glucopyranosyl)ureas as inhibitors of glycogen phosphorylase: synthesis and evaluation by kinetic, crystallographic, and molecular modelling methods *Bioorg. Med. Chem.* 20, 1801-1816. (IF<sub>2012</sub> 2.903)

PDB IDs: 2QNB, 2QLM, 2QLN, 2QN3, 2QN7, 2QN8, 2QN9

- 41. Dimarogona, M., Topakas, E., Christakopoulos, P., <u>□Chrysina, E.D.</u> (2012) The structure of a GH10 xylanase from *Fusarium oxysporum* reveals the presence of an extended loop on top of the catalytic cleft *Acta Crystallogr. D68*, 735-742. (IF<sub>2012</sub> 14.103)

  PDB IDs: <u>3U7B</u>
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65. Minadakis, M-P., Mavreas, K.F., Neofytos, D.D., Paschou, M., Kogkaki A., Athanasiou, V., Mamais, M., Veclani, D., Iatrou, H., Venturini, A., <a href="Mailto:Chrysina">Chrysina</a>, E.D., Papazafiri, P., Gimisis, T. (2022) A glucose-based molecular rotor inhibitor of glycogen phosphorylase as a probe of cellular enzymatic function. *Org. Biomol. Chem. 20*, 2407-2423 (IF<sub>2021-22</sub> 3.876) (Front Cover) **Pdb ID**: **705**I

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66. Neophytos, D.D., Papagiannopoulos, A., <u>Chrysina, E.D.</u>, Pispas, S. (2022) Formation and physicochemical properties of Glycogen Phosphorylase in complex with a cationic polyelectrolyte Int. J. Biol. Macromol. 206 371-380 (IF<sub>2021</sub> 6.953)





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- 69. Oikonomakos, N.G., <u>Chrysina, E.D</u>., Tiraidis, C., Leonidas, D.D., Zographos, S.E. (**2007**) Conformation flexibility of the 280s peptide loop in glycogen phosphorylase: implications for inhibitor design. 5<sup>th</sup> Hellenic Forum on Bioactive Peptides (P.A. Cordopatis et al., Eds.).
- 70. Chegkazi M.S., Mamais M., Sotiropoulou, A.I., <u>Chrysina, E.D.</u> (2018) Rational Drug Design using Integrated Structural Biology. *Methods Mol Biol.* 1824, 89-111, Springer Protocols.

## Other publications / Opinions

- Mavridis, I.M and Chrysina, E.D. (2010) Fostering Structural Biology in Greece. European Union – Issue 19, Digital Edition
- Chrysina, E., Naomi, G., Chapman S. (2019) Instruct-ULTRA D1.3 Women in Science Workshop DOI: 10.5281/zenodo.4304571, <a href="https://zenodo.org/record/4304571">https://zenodo.org/record/4304571</a>









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 Chrysina, E.D. (2021) – Interview to share the experiences of local community members of European Open Science Cloud (EOSC) <a href="https://ni4os.eu/2021/03/30/an-interview-with-evangelia-chrysina/">https://ni4os.eu/2021/03/30/an-interview-with-evangelia-chrysina/</a>

# **Funding**

## Research Funding (2008 – present)

- 1. **iNEXT-Discovery, Structural biology for translational research and discovery project no. 871037, Horizon 2020 program of the EC** (coordinator: Prof. A. Perrakis, PI for NHRF ED Chrysina, Total Budget: €9,987,756.5, Budget for NHRF: €18,000) (2021-2024) (<a href="https://inext-discovery.eu">https://inext-discovery.eu</a>)
- 2. "INSPIRED-The National Research Infrastructures on Integrated Structural Biology, Drug Screening Efforts and Drug target functional characterization" (MIS 5002550). Action "Reinforcement of the Research and Innovation Infrastructure", funded by the Operational Programme "Competitiveness, Entrepreneurship & Innovation" (National Strategic Reference Framework-NSRF 2014-2020) & co-financed by Greece & the EU (Coordinator: Dr ED Chrysina, Total budget €3,818,820.00, Budget for Instruct-EL hub/NHRF: €540,000.85) (3/9/2018-30/09/2022) (https://www.inspired-ris.gr)
- 3. Structural optimization of thermophilic multienzymic nanostructures with applications biorefineries (contract no.: 2019-050-0503-18289) (Funding for a Post-doctoral researcher, M-D. Charavgi, MSc, PhD in colalboration with Dr D. Hatzinikolaou, Univ. of Athens, State Scholarships Foundation, total budget: €26,400.00 (01.02.2020 31.01.2022)
- 4. Structural studies of enzymes of biotechnological interest with emphasis on β-hydrolases implicated in plant biomass degradation (contract no.: 2018-050-0502-15915) (Funding for a PhD student, A. Sotiropoulou, MSc, under the joint supervision of Dr D. Hatzinikolaou, Univ. of Athens and Dr E.D. Chrysina, IBMCB-NHRF, State Scholarships Foundation, total budget: €29,408.4 (24.04.2018 23.04.2021)



- 5. "Releasing the full potential of Instruct to expand and consolidate infrastructure services for integrated structural life science research: Instruct-ULTRA". Proposal No. 731005, Horizon2020-INFRADEV-2016-2017 (Development and long-term sustainability of new pan-European research infrastructures, Coordination and support action INFRADEV-03-2016-2017) (Coordinator: Prof. Dave Stuart/Prof. Ray Owens, PI for Greece: Dr ED Chrysina, Total Budget: €395,000, Budget for Instruct-EL/NHRF: €100,000) (https://instruct-ultra.eu/network/instruct-ultra/home)
- 6. Targeted therapeutic approaches against degenerative diseases, with emphasis on cancer and aging-STHENOS II" (01.11/2017-30.11.2020) National Strategic Reference Framework-NSRF, Greek General Secretariat for R&T (GSRT) call 'KRIPIS' (Coordinator: Dr A. Pintzas, Director of IBMCB/NHRF €1,500,000.00, ED Chrysina budget: €26,714.00)
- 7. **«Instruct-Ellas, National consortium». Transnational Access to large scale synchrotron radiation facilities** in the frame of "BioStruct-X" April 2012-2015 (coordinator: Dr. E.D. Chrysina) (users' visits to Synchrotron Radiation Source-EU Large scale facilities with accommodation and travel expenses)
- 8. **«REN-ATHENS» Researchers' Night: meeting science and your next door scientist,** Contract no. 633335 **Horizon2020** (Coordinator: Dr G. Fanourakis/ NCSR-Demokritos, PI for NHRF, ED Chrysina, budget for NHRF €11.200)
- 9. **«Advancement of Research Capability for the Development of New Functional Compounds ARCADE»**. **FP7-REGPOT-2009-1-245866** Coordination and Support actions (Support) (2008-2013) (Coordinator: Dr. B.Steele/IOPC-NHRF) (2.966.510 €) (01.12.2009-30.05.2013) (ED Chrysina budget: €180,000)
- 10. **«Synthesis, kinetic and crystallographic studies of potential inhibitors targetin glycogen phosphorylase** », (2010-2013) **HERAKLEITOS II** (in cooperation with Assoc. Prof. Th. Gimisis (PI) and Prof. D. Kyriakidis, former president of NHRF)
- 11. «Molecular, structural and catalytic studies of novel biocatalysts (hemicelluloses) implicated in plant biomass degradation», (2010-2013) HERAKLEITOS II (in cooperation with Prof. P. Christakopoulos/NTUA (PI) and Prof. D. Kyriakidis, former president of NHRF)
- 12. Funding for access to large scale facilities for performing experimental work, EMBL/DESY Hamburg unit for use of the synchrotron radiation source (2011) (P.I. Dr E.D. Chrysina).
- 13. Funding for access to large scale facilities for performing experimental work (Transnational Access award), Protein Production Platform P-CUBE for optimizing human brain glycogen phosphorylase expression (2011) (P.I. Dr E.D. Chrysina).
- 14. Funding for access to large scale facilities for performing experimental work, EMBL/DESY Hamburg unit for use of the synchrotron radiation source (2009-2010) (P.I. Dr E.D. Chrysina).
- 15. Funding for access to large scale facilities, SRS-Daresbury Laboratory for use of the synchrotron radiation source on "Determining the structure of a new alkaline xylanase III (F/10) from Fusarium Oxysporum" (P.I. Dr E.D. Chrysina, 2007).



Research Funding (2001 - 2008)

(in co-operation N.G. Oikonomakos, head of the Structural Biology & Chemistry Group & Director of the Institute of Organic and Pharmaceutical Chemistry (IOPC/NHRF)

- 16. **«European consolidation and promotion of research capacity in the area of structure-based drug discovery EUROSTRUCT»**. **FP7-REGPOT-2008-230146** Coordination and Support actions (Support) (2008-2011) (Coordinator: N.G Oikonomakos/ D.D. Leonidas, 2008-2011/S.E. Zographos, 2011-2012) (€986.000).
- 17. «Drug design at the molecular level using approximate and exact computational methods- DRUGDESI» Transfer of Knowledge (ToK) Marie Curie Program, MTKD-CT-2006-042776 (2007-2011) (Coordinator: N.G. Oikonomakos/ E.D. Chrysina Sept. 2008-11) (€186.396).
- 18. «A European Research Training Site for the Design and Synthesis of Novel Neuroprotective and Hypoglycaemic Agents through a Multi-disciplinary approach», EURODESY, EU Marie Curie Early Stage Training (EST) network, MEST-CT-020575 (Coordinator: Dr N.G. Oikonomakos, with the participation of all research groups of IOPC/NHRF and Molecular Endocrinology group o IBRB/NHRF (2006-2010), €984,122.
- 19. Structure-based design of new hypoglycaemic drugs, Κοινό Διακρατικό Πρόγραμμα μεταξύ Ελλάδος-Ουγγαρίας (Joined Research and Technology Project between Greece-Hungary)/ GSRT PI Dr N.G. Oikonomakos/NHRF and Prof. Lászlo Somsák/Department of Organic Chemistry, University of Debrecen, Debrecen, Hungary (2004-2006) (€11.740)
- 20. Discovery of small-molecule inhibitors of glycogen phosphorylase, as potential hypoglycaemic agents, guided by structure-based drug design and *in silico* virtual ligand screening, Scientific and Technological cooperation between Greece and USA/GSRT, to Dr. N.G. Oikonomakos/NHRF and Prof. Alexander D. MacKerell, Jr., Computer-Aided Drug Design Center, School of Pharmacy, Univ. of Maryland, Baltimore, MD, USA) (2004-2006) (€60.000).
- 21. Crystallisation and preliminary crystallographic studies on human phosphoenolpyruvate carboxykinase, a molecular target for types 2 diabetes therapy. Supported by Pfizer Inc. (2003-2005) (PI. Dr. N.G. Oikonomakos/NHRF) (€8.000).
- 22. Exploitation of the scientific results obtained through a spin off company dedicated to structure-based drug design. 02 PRAXE3/GSRT (PI Dr N.G. Oikonomakos/NHRF (2003-2004) (€44.000).
- 23. Glycogen phosphorylase as molecular target for the development of new potent hypoglycaemic drugs, PENED 2001/GSRT (in collaboration with Prof. C. Sakarellos/Dept. of Chemistry, Univ. of Ioannina, Ioannina, Greece, coordinator Dr N.G. Oikonomakos/NHRF, <u>Business partner</u> Aventis Pharma Deutsland GmbH) (2002-2005), €128,187.82
- 24. Calmodulin regulated protein kinases: molecular and cellular functions of five prototypic members from the human genome by a multidisciplinary approach. HPRN-CT-2002-00252/EU Research Network (Coordinator Matthias Wilmanns, EMBL, Hamburg Outstation; participants Louise Johnson, Univ. of Oxford, Adi Kimchi, Weizmann Inst. of Science, Mathias Gautel, King's College London, UK, N.G. Oikonomakos (PI), NHRF, Mauno Vihinen, Univ. of Tampere) (2002-2006) (€200.000).
- 25. Inhibitors of glycogen phosphorylase and phosphorylase kinase as potential antidiabetic drugs, ENTER/GSRT, 2002-2004 to Dr E.D. Chrysina (Reintegrated researcher



- from abroad) and Dr N.G. Oikonomakos/NHRF (Host). Business partner **AstraZeneca UK Ltd**), Total Budget € 73.250,00.
- 26. European Structural Biology Forum (ESBF)-to a European infrastructure cooperation network/EU (2001-2005). An Infrastructure Cooperation Network (coordinated by Prof. Rolf Hilgenfeld, P.I. Dr. N.G. Oikonomakos/NHRF) with 10 European Research Infrastructures, 8 Users, and Bruker GmbH, Karlsruhe, Germany, Travel grants (€11.200)
- 27. **Glycogen phosphorylase inhibitors as potential antidiabetic drugs. A Royal Society UK- Joint Project Grant** to Prof. Dame L.N. Johnson, FRS/Laboratory of Molecular Biophysics, University of Oxford and Dr. N.G. Oikonomakos/NHRF. (2001-2003) (£12,000).
- 28. Molecular recognition and rational design of potential drugs, **Joint Research and Technology Project between Greece-Cyprus/GSRT** to Dr. N.G. Oikonomakos/NHRF and Prof. G. Archontis/University of Cyprus, Cyprus (2001-2003), € 8,804.11
- 29. Crystallisation studies and crystallographic studies of glycogen phosphorylase. Supported by **AstraZeneca**, **UK** (PI Dr N.G. Oikonomakos, Researcher Dr ED Chrysina) (2001-2003) £50,000.
- 30. **Crystallographic studies of glycogen phosphorylase-inhibitor complexes.** Supported by **Aventis Pharma Deutschland GmbH** (Frankfurt am Main, Germany) (PI Dr N.G. Oikonomakos /NHRF) (2001) (DM15.000).
- 31. From enzyme-inhibitor complex crystal structure to the design of potential hypoglycaemic drugs for the treatment of non-insulin-dependent diabetes mellitus, Joined Research and Technology Project between Greece-Hungary/GSRT to Dr N.G. Oikonomakos/NHRF and Prof. L. Somsak/Department of Medicinal Chemistry, University of Debrecen, Debrecen, Hungary (1999-2001) (€11.738,81)
- 32. Structure-Function relation of muscle allosteric proteins: molecular recognition of small molecules by proteins and structure-based drug design. PENED 1999/GSRT. (PI N.G. Oikonomakos / NHRF), (1999-2001) (€13.2061,63)
- 33. **Structure/function relationships in enzymes of glycogen metabolism, Wellcome Trust**Biomedical Research Collaboration Grant (with the Laboratory of Molecular Biophysics, Univ. of Oxford) (1997-2001) (£12,000).

## Other research grants

- 34. «Instruct-EL: a National Research Infrastructure on Integrated Structural biology» involving 14 academic & research organizations across the country (P.I. Dr E.D. Chrysina).
- 35. "Infrastructure for NMR, EM and X-ray crystallography for translational research, i-NEXT". Proposal No. SEP-210169978, Horizon2020-INFRAIA-2014-2015 (Integrating and operating existing national and regional research infrastructures of European interest, Research and Innovation Action-RIA) (Coordinator: Prof. Rolf Boelens, ED Chrysina, member of the Greek partners from Univ. of Patras)
- 36. **«GPdia A multidisciplinary investigation towards inhibitors of glycogen phosphorylase designed and evaluated as antidiabetic molecules» French Agence Nationale de la Recherche (ANR)** (coordinator: Prof. Jean-Pierre Praly, Université Claude-Bernard Lyon 1).
- **37.** «Molecular, structural study study of novel biocatalysts (hemicelluloses) that were isolated με with the aid of bioinformatics tools» **PEVE 2008** (P.I. Prof. P. Christakopoulos, NTUA).



## Service provision to users of the facilities available at ICB/NHRF

X-ray Diffraction Analyses and analyses of bioactive compounds (XRPD, XRD) for pharmaceutical companies, as services to external users (2016 – present) (Scientist in charge: Dr E.D. Chrysina)

Invited Member of the Editorial Board of scientific peer-reviewed journal:

**Biomolecules** – Section Biochemistry, IF 4.879 (since 2021), https://www.mdpi.com/journal/biomolecules/sectioneditors/bio\_chemistry

## Invited Reviewer of scientific peer-reviewed journals / conferences proceedings:

Applied Microbiology and Biotechnology, Biochemistry and Biophysics Reports, Bioorganic and Medicinal Chemistry, Cancers, Catalysts, Computational & Structural Biology Journal, Expert Opinion on Therapeutic Patents, FEBS Journal, FEBS Open Bio, Food and Bioproducts Processing, Frontiers in Molecular Biosciences, Future Medicinal Chemistry, Int. Federation of Automatic Control (IFAC), Int. Journal of Biological Molecules, Foundations of Systems Biology in Engineering (FOSBE), Journal of Bioorganic and Medicinal Chemistry, Journal of Pest Science, Journal of Structural Biology, Molecular Medicine Reports, Molecules, World Journal of Microbiology and Biotechnology, European Conference on Computational Biology (ECCB)

## Societal Impact (2018-2021)

a) Dissemination and outreach activities to the public

## **Events organization**

- First Regional Structural Biology Meeting for Balkans and the South-East Mediterranean area, 14 May 2021 (online meeting) (main organizer in collab. with NKI, Instruct-ERIC) <a href="https://inext-discovery.eu/events/first-regional-structural-biology-meeting-balkans-and-the-south-east-mediterranean/">https://inext-discovery.eu/events/first-regional-structural-biology-meeting-balkans-and-the-south-east-mediterranean/</a>
- Women in Science Workshop, Satellite event to the INSTRUCT Biennial Meeting, Alcala de Henares, Madrid, Spain, 22 May 2019 (main organizer, in collab. with Univ. of Oxford, Instruct-ERIC) <a href="https://instruct-eric.eu/biennial2019/women-in-science-workshop">https://instruct-eric.eu/biennial2019/women-in-science-workshop</a>



## Other publications / opinions

Chrysina, E.D. (2021) – Interview to share the experiences of local community members of European Open Science Cloud (EOSC), <a href="https://ni4os.eu/2021/03/30/an-interview-with-evangelia-chrysina/">https://ni4os.eu/2021/03/30/an-interview-with-evangelia-chrysina/</a>



Athanasiou, S., Amiridis, V., Gaviilidou, M., Gerasooulos, E., Dimopoulos, A., Kaklamani, G., Karagiannis, F., Klampanos, I., Kondili, D., Koumantaros, K., Konstantopoulos, P., Lenaki, K., Likiardopoulos, A., Manola, N., Mitrooulou, D., Benardou, A., Boukos, N., Nousias, A., Ntaountaki, M., Oikouta, S., Ollandezou, L, Papadopoulou, E., Papastamatiou, I., Piperidis, S., Speyer, O., Tsiavos, P., Chrysina, E., Psomopoulos, F. (2020) DOI: 10.5281/zenodo.3908953, https://zenodo.org/record/3908953



Chrysina, E., Naomi, G., Chapman S. (2019) Instruct-ULTRA D1.3 Women in Science Workshop DOI: 10.5281/zenodo.4304571, https://zenodo.org/record/4304571



Alcalá de Henares, Madrid, Spain

Communication of science to the large public in Greece with emphasis on the young scientists and women in the field of research, technology and engineering as well as the profession of researcher. For this purpose, participation in the organization of conferences, info days, events for increasing public awareness for scientific research in Greece targeting both the scientific community and the large public in collaboration with NHRF, the British Council and other academic and research organizations.

❖ Organization of a series of lectures for the National Hellenic Research Foundation [Science Communication] entitled: «Natural Sciences – Research – Drugs & Health: Integrated approaches focusing on human being 5, 12, 19 March 2019 & 2, 9, 16 April 2019 (Organizers Dr ED Chrysina, Dr G. Mousdis).

Training and educational activities targeted for the public

## **Teaching staff lecturing in Master's programmes:**

❖ Teaching staff lecturing in the course "Algorithms in Structural Bioinformatics" in the frame of the MSc programme entitled "Data Science & Information Technologies (DSIT)-Bioinformatics", Department of Informatics and Telecommunications, National and Kapodistrian University of Athens. Spring semester 2022, 2021, 2020, 2019 (co-turor with Prof. I. Emiris)



- Teaching staff lecturing in the course "Algorithms in Structural Bioinformatics" in the frame of the MSc programme entitled "Information Technologies with Applications in Medicine and Biology", Department of Informatics and Telecommunications, National and Kapodistrian University of Athens. Spring semester 2018 (co-turor with Prof. I. Emiris)
- ❖ Teaching staff lecturing in the section ONG7-Development of targeted anti-cancer agents and predictive biomarkers for cancer treatment» in the frame of the Master's programme «Oncology», University of Crete/National Hellenic Research Foundation. Lecture: «Integrated approaches of structural biology in macromolecular targets implicated in cancer with emphasis on kinases». Spring Semester 2020, 2021, Duration 2 hours
- ❖ Invited lecturer in the frame of the Master's programme of the Department of Pharmacy of the National and Kapodistrian University of Athens (invitation by As. Prof. I. Kostaki)

<u>Lecture title</u>: Structural Biology as tool for combating major diseases- the role of X-ray protein crystallography in the structure-based drug design approach (27 May 2016)

<u>Lecture title</u>: **Unwinding the thread of protein structure** (4 June 2021)

Duration: 3 hours, Years: 2016, 2021

## **Teaching staff lecturing in University Undergraduate Courses**

Teaching staff lecturing (position 407/80 Ministry of Education) the course «Bioinformatics» University of Piraeus, School of Information and Communication Technologies, Department of Informatics (6<sup>th</sup> semester of undergraduate studies). Co-tutor with the main lecturer for the course Assoc. Prof. A. Pikraki. Duration: 6<sup>th</sup> semester of the undergraduate studies, Years: 2018, 2021, 2022

## Other activities with socio-economic impact

- ❖ Promote the cooperation of NHRF with the Örebro University, Sweden
- Women in Science Workshop, Satellite event to the INSTRUCT Biennial Meeting, Alcala de Henares, Madrid, Spain, 22 May 2019 (main organizer) https://instruct-eric.eu/biennial2019/women-in-science-workshop

# Other professional activities

## Policy making strategic initiatives

Dr Chrysina has been engaged in policy making strategic initiatives for the establishment of Structural Biology in Europe since 2008. She coordinated the scientific community efforts to include Structural Biology in the national roadmap for RIs and she is the Coordinator of National Research Infrastructure on Structural Biology and Scientist in charge for Instruct-EL hub at NHRF. Since 2017, she represents Greece in Instruct-ERIC Council with the status of observer, authorized by GSRI and NHRF. She is permanent expert of the Greek Delegation and Member of the European Strategy Forum of Research Infrastructures-ESFRI Implementation Group (since 2020). One of her tasks as member of the ESFRI IG group was to evaluate the new projects for the new ESFRI Roadmap (2021).



Since 2016 she has been serving as invited expert evaluator in different funding bodies across Europe. Dr Chrysina has been engaged in policy making strategic initiatives for the establishment of Structural Biology in Europe since 2008. She coordinated the scientific community efforts to include Structural Biology in the national roadmap for RIs and she is the Coordinator of National Research Infrastructure on Structural Biology and Scientist in charge for Instruct-EL hub at NHRF. Since 2017, she represents Greece in Instruct-ERIC Council with the status of observer, authorized by GSRI and NHRF. Full membership in Instruct-ERIC is the next national goal to achieve; until present her perseverance in achieving the goals set and her commitment have made possible the exceptional approval of the extension that Greece asked to remain an Observer in Instruct-ERIC Council as an affiliated country, from two to four years, allowing for sufficient time to explore all possibilities with the Greek Structural Biologists and GSRI for Greece to join the ESFRI Landmark Instruct as full member. She is permanent expert of the Greek Delegation and Member of the European Strategy Forum of Research Infrastructures-ESFRI Implementation Group (since 2020). One of her tasks as member of the ESFRI IG group was to evaluate the new projects for the new ESFRI Roadmap (2021) and this assignment allowed her to gain tremendous experience regarding the responsibilities as well as the challenges that the position of leading an RI, bears. Since 2016 she has been serving as invited expert evaluator in different funding bodies across Europe, i.e. Czech Science Foundation, Medical Research Council (MRC), The Brain Centre, Southmead Hospital (BRACE) and Biotechnology and Biological Sciences Research Council (BBSRC) in UK, Research Foundation Flanders in Belgium, European Commission in the frame of Horizon 2020 and Horizon Europe, European Research Council (ERC).

In summary: Participation in Scientific and Management Committees that contribute to Research and Innovation Policy Making

Chair of the NHRF "Open Data" Committee **2021 – present 2021 – present** Member of European Open Science Cloud (EOSC) User Group **2020** – present National representative in the European Strategy Forum on Research Infrastructures (ESFRI) Implementation Group & Permanent expert of the Greek delegation https://www.esfri.eu/sites/default/files/Current ESFRI Membership.pdf 2020 - present National representative in the European Strategy Forum on Research Infrastructures (ESFRI) Implementation Group & Permanent expert of the Greek delegation https://www.esfri.eu/sites/default/files/Current ESFRI Membership.pdf **2020 – present** European Venom Network (EUVEN) (Cost action CA19144), Management Committee substitute https://euven-network.eu/management-committee/ **2019 – present** Member of the informal working group for «Open Science in Greece» **2015** – present Member of the Greek committee for the participation of Greece in the European Spallation Source (ESS) **2015** – present Scientist in charge for representing Greece in the «Integrated Structural Biology Infrastructure – Instruct», during the preparatory and operational phase of Instruct ESFRI project; member of Instruct-ERIC Council as observer, being the authorized representative of Greece for NHRF and GSRT since 2017 2013 - 2018Member of the NHRF scientific committee on "Science Communication to the General public and Educational events".



Organization of conferences / symposia / workshops & other events for the Communication of Science

Member or head of the organization committee of conferences / symposia / and workshops (2004 – present).

# S (2004 – present). HAΕΚΤΡΟΝ ΜΙΚΡΟΣΚΟ Τεχνικές & Εφαι Ηλεκτρονική, Μικρο

#### 2022

1st Electron Microscopy Workshop, Instruct-EL hub / Inspired-RIs, 18 June 2022 (main organizer along with Aristotle University of Thessaloniki) https://www.inspired-ris.gr/news\_en.html



INEXT Instruct

First Regional Structural Biology m

## 2021

First Regional Structural Biology Meeting for Balkans and the South-East Mediterranean area, 14 May 2021 (online meeting) (main organizer)

https://inext-discovery.eu/events/first-regional-structural-biology-meeting-balkans-and-the-south-east-mediterranean/





#### 2019

Women in Science Workshop, Satellite event to the INSTRUCT Biennial Meeting, Alcala de Henares, Madrid, Spain, 22 May 2019 (main organizer)

https://instruct-eric.eu/biennial2019/women-in-science-workshop



# 2016

Dilemmas in structural biology: selection and integration of methods, NHRF, Athens, February, 14-16 (main organizer)

 $\frac{https://www.biostruct-x.eu/content/dilemmas-structural-biology-selection-and-integration-methods$ 

http://www.eie.gr/nhrf/institutes/ibmcb/News/2016/14 02 2016 Workshop.html



## Workshop

# Dilemmas in structural biology: selection and integration of methods



National Hellenic Research Foundation, Athens // 14 - 17 February 2016

\* Workshop on targeted drug discovery, NHRF, Athens, October 10-14 (μέλος)



❖ 9<sup>th</sup> Swedish-Hellenic Life Science Research Conference, NHRF, Athens, October 5-6 (member)

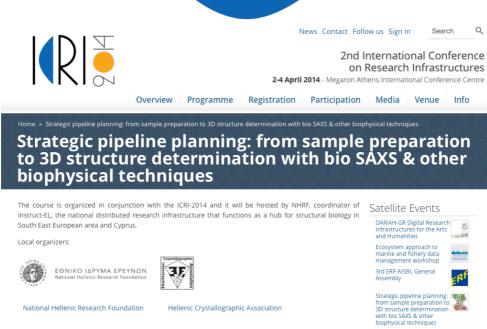
## 2015

❖ 8<sup>th</sup> Swedish-Hellenic Life Science Researc Conference, NHRF, Athens, October 12-13 (member)

#### 2014

Strategic pipeline planning: from sample preparation to 3D structure determination with bio SAXS & other biophysical techniques, NHRF, Athens, 5-10 April (main organizer) (<a href="http://www.icri2014.gr/sattelite-events/strategic-pipeline-planning-sample-preparation-3d-structure-determination-bio-saxs">http://www.icri2014.gr/sattelite-events/strategic-pipeline-planning-sample-preparation-3d-structure-determination-bio-saxs</a>)





#### 2013

- Summer school of protein structure, Athens, June 27-29, 2013 (μέλος)
  http://www.biol.uoa.gr/fileadmin/biol.uoa.gr/uploads/Evnts\_Ancmnts/Poster\_summer\_school\_2013.pdf
- ❖ 7<sup>th</sup> Swedish-Hellenic Life Science Research Conference, Örebro University, Örebro, Sweden, June 9-10 (member)

## 2012

\* 15<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, Athens, May 25-27 (μέλος)

#### 2011

Structure- & Computer- Aided Design Workshop. Bioactive molecules and Materials,
 7-11 November 2011 (member)

## 2009

Structural Biology & Chemistry Symposium, Athens 30-31 Oct. 2009 (member)

#### 2008

- ❖ 4<sup>th</sup> Conference of the Hellenic Crystallographic Association, National Hellenic Research Foundation, Athens, 26-27 September 2008 (member)
- Workshop on Molecular Modelling" Approaches to Computational Biophysics", Athens,
   5-6 December 2008 (main organizer)
- 4<sup>th</sup> Conference of the Hellenic Crystallographic Association, National Hellenic Research Foundation, Athens, 26-27 September 2008 (member)

## 2005

Workshop on Drug Design- to promote innovation in science and technology and facilitate the dissemination of knowledge in the drug design field to under- and post-graduate students, teachers, instructors, the general public (in the frame of programme HERMES funded by GSRT (member)

#### 2004

CAMKIN-European network annual meeting, Athens, June 2004 (member)

- Technical Chamber of Greece (TEE) since 1996
- British Biochemical Society (1997-2002)
- **British Crystallographic Association** (BCA) (1997-2002)
- Hellenic Crystallographic Association (HeCrA) since 2002
- Hellenic Society of Biochemistry and Molecular Biology (EEBMB) since 2002
- Marie Curie Fellows Association (MCFA) since 1997 (Founding member and General Secretary
  of the Administrative Board of the Hellenic Subgroup MCFA-EL 2006-2008, Member of the
  Advisory Board of the Association 2012-2013)
- Hellenic Initiative "Mikrobiokosmos" since 2015
- Hellenic College of Atherosclerosis since 2015
- Hellenic Bioinformatics society-HBIO since 2016

Organization and/or participation in the organization of events on the communication of science to the general public (2004 – present):

Communication of scince to the large public in Greece with emphasis on the young scientists and women in the field of research, technology and engineering as well as the profession of researcher. For this purpose, participation in the organization of conferences, info days, events for increasing public awareness for scientific research in Greece targeting both the scientific community and the large public in collaboration with NHRF, the British Council and other academic and research organizations.

2019	: Organization of the series of lectures for NHRF -Science Communication
	entitled: «Natural Sciences - Research - Drugs & Health: Integrated
	approaches focusing on the people» 5, 12, 19 March 2019 & 2, 9, 16 April 2019
	(main organizers: Dr E.D. Chrysina/ICB, Dr G. Mousdis/TPCI).

2015 : Researchers Night, NHRF, Athens, 11.09.2015 – pre-event and main event (P.I. for NHRF, partner of the consortium)

Foundation of the Hellenic World, Athens, 25.09.2014 (main event)

2014-2015 : **Athens Science Festival**: organization of the NHRF team participation

: **Researchers Night, NHRF, Athens, 12.09.2014** – pre-event and main event k" **NCSR-"Demokritos"**, Athens, 26.09.2014

2013 : The Science of Christmas, NHRF, Athens, 21.12.2013
 2012, 2013 : Researchers Night, NHRF, Athens, 28.09. 2012 & NCSR-"Demokritos", Athens, 27.09.2013

2011 : **Chemistry, our life, our future.** The event was organized as part of the celebrations in memory of Marie Sklodowska Curie and her contribution in science as well as the benefits of chemistry in science & everyday life, 7-11 November.

2009-2011 : **"Sunday Mornings"**, experiments targeting the general public & especially children and teenagers with the aim to stimulate their interest & enthusiasm about science.

2008 : Researchers Night, NHRF, Athens, 26 September
 Discovering the wonderful world of sciences, NHRF, Athens 30-31 October
 Research & Technology Festival, Zappeio, Athens, 27 November – 3 December

2005 : **From Einstein to Ice cream**. Physics for the whole family, as part of the worldwide celebrations taking place in 2005 to mark Einstein Year and highlight the contribution of physics to society (in coop. with The Open University–UK, British Council, Greece).