

1 Personal Information

Name:

Konstantinos Anagnostopoulos

Marital Status:

Married with one child

Nationality:

Greek

Work  Laboratory
of Biochemistry,
Department of Medicine,
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2 Current Position

Professor, Laboratory of Biochemistry, Department of Medicine, Democritus University of Th-
race

3 Studies

June 1986	•	Graduation from the 19th General High School of Thessaloniki.
October 1986-October 1990	•	Degree in Chemistry, Department of Chemistry, Aristotle University of Thessaloniki.
October 1990-February 1995	•	Doctoral thesis, Laboratory of Biochemistry, Department of Chemistry, Aristotle University of Thessaloniki. Subject: " Study of the biosynthesis of polyamines in the bacterium <i>Escherichia coli</i> " .

4 Professional Experience

March 1995- January 1997	Postdoctoral researcher at the Max-Planck Institut fuer Molekulare Genetik of Berlin with a scholarship from the Max-Planck company (Max-Planck Gesellschaft zur Foerderung der Wissenschaft) and then with a scholarship from the European Union, in the program TMR (Training and Mobility of Researchers).
March 1997-September 1998	Military service.
October 1998-June 1999	After completing the military obligations, I returned to the Max-Planck Institut fuer Molekulare Genetik of Berlin, where I continued as a postdoctoral researcher with the scholarship of the TMR, which had been suspended during the military service.
July 1999-September 2002	Biochemist at the Biochemical Laboratory of the General Hospital "PAPAGEORGIOU", in Thessaloniki.
October 2002-December 2003	Department of Biochemistry and Biotechnology of the University of Thessaly.
January 2004-June 2009	Lecturer, Laboratory of Biochemistry, Department of Medicine, Democritus University of Thrace.
June 2009-August 2014	Assistant Professor, Laboratory of Biochemistry, Department of Medicine, Democritus University of Thrace.
August 2014-May 2023	Associate Professor, Laboratory of Biochemistry, Department of Medicine, Democritus University of Thrace.
May 2023-Present	Professor, Laboratory of Biochemistry, Department of Medicine, Democritus University of Thrace.

5 Research Interests

- Theoretical and computational biochemistry.
- Clinical biochemistry - quality control of biochemical analyses.
- Study of oxidative stress.
- Determination of biological indicators (biomarkers).
- Immunometabolism of the erythrocyte.

6 Scientific Publications

6.1 Doctoral Dissertation

- Study of the biosynthesis of polyamines in the bacterium *Escherichia coli*

Doctoral Dissertation, Thessaloniki (1995)

6.2 Selected publications.

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- | | |
|------|---|
| 1996 | <p>•</p> <p>1. Ribosomal crystallography: from crystal growth to initial phasing
J. Thygesen, S. Krumbholz, I. Levin, A. Zaytsev-Bashan, J. Harms, H. Bartels, F. Schlutzen, H.A.S. Hansen, W.S. Bennett, N. Volkmann, I. Agmon, M. Eisenstein, A. Dribbin, E. Maltz, I. Sagi, S. Morlang, M. Fua, F. Franceschi, S. Weinstein, N. Bodekker, R. Sharon, K. Anagnostopoulos, M. Peretz, M. Geva, Z. Berkovitsch-Yellin, A. Yonath
<i>Journal of Crystal Growth</i> 1996; 168: 308-323.</p> |
| 1999 | <p>•</p> <p>2. Metal Compounds as tools for the construction and interpretation of medium-resolution maps of ribosomal particles.
S. Weinstein, W. Jahn, C. Glotz, F. Schlutzen, I. Levin, D. Janell, J. Harms, I. Koelln, H.A.S. Hansen, M. Gluehmann, W.S. Bennett, H. Bartels, A. Bashan, I. Agmon, M. Kessler, M. Pioletti, H. Avila, K. Anagnostopoulos, M. Peretz, T. Auerbach, F. Franceschi and A. Yonath
<i>Journal of Structural Biology</i> 1999;127:141-151.</p> |
| 1999 | <p>•</p> <p>3. The identification of selected components in electron density maps of prokaryotic ribosomes at 7 Å resolution.
F. Schlutzen, I. Koelln, D. Janell, M. Gluehmann, I. Levin, A. Bashan, J. Harms, H. Bartels, T. Auerbach, M. Pioletti, H. Avila, K. Anagnostopoulos, H.A.S. Hansen, W.S. Bennett, I. Agmon, M. Kessler, A. Tocilj, S. Krumbholz, M. Peretz, S. Weinstein, F. Franceschi and A. Yonath
<i>Journal of Synchrotron Radiation</i> 1999;6:928-941.</p> |
| 2000 | <p>•</p> <p>4. Genetic and Biochemical Manipulations of the Small Ribosomal Subunit from <i>Thermus thermophilus</i> HB8.
Tamar Auerbach, Marta Pioletti, Horacio Avila, Kostas Anagnostopoulos, Shulamith Weinstein, Francois Franceschi and Ada Yonath
<i>Journal of Biomolecular Structure and Dynamics</i> 2000;17(4):617-628.</p> |
| 2007 | <p>•</p> <p>5. Effect of HbS in the determination of HbA2 with the TOSOH HLC-723G7 analyzer and the HELENA Beta-Thal Quik column kit.
C. Kalleas, I. Tentes, D. Margaritis, K. Anagnostopoulos, A. Toli, D. Pendilas, G. Bourikas, C. Tsatalas and A.H. Kortsaris
<i>Clinical Biochemistry</i> 2007;40:242-247.</p> |

- 2007** ● ● **6. Effect of HbS in the determination of HbA2 with the Biorad Variant II analyzer.**
C. Kalleas, I. Tentes, D. Margaritis, **K. Anagnostopoulos**,
A. Toli, D. Pendilas, G. Bourikas, C. Tsatalas and A.H. Kortsaris
Clinical Biochemistry 2007;40:744-746.
- 2009** ● ● **7. Effect of HbS in the determination of HbA2 with the Menarini HA-8160 analyzer and comparison with other instruments.**
K. Anagnostopoulos, I. Tentes, C. Kalleas, D. Margaritis,
A. Toli, D. Pendilas, G. Bourikas, C. Tsatalas, A. Kortsaris
International Journal of Laboratory Hematology 2009; 31(6): 665-672 .
- 2012** ● ● **8. Phenotype and genotype frequency of β -thalassemia and sickle cell disease carriers in Halkidiki, Northern Greece.**
Christoforos Kalleas, **Kostas Anagnostopoulos**, Klio Sinopoulou, Evangelia Delaki, Dimitrios Margaritis, Georgios Bourikas, Constantinos Tsatalas,
Alexandros Kortsaris and Ioannis Tentes
Hemoglobin (2012);36(1):64-72.
- 2015** ● ● **9. Structural properties and interaction energies affecting drug design. An approach combining molecular simulations, statistics, interaction energies and neural networks.**
Dimitris Ioannidis, Georgios E. Papadopoulos, Georgios Anastassopoulos, Alexandros Kortsaris, **Konstantinos Anagnostopoulos**
Computational Biology and Chemistry (2015);56:7-12.
- 2019** ● ● **10. Validation of the novel Martin method for LDL cholesterol estimation.**
Efi Petridou, **Kostas Anagnostopoulos**
Clinica Chimica Acta (2019);496:68-75.
- 2020** ● ● **11. Cholesterol and Phospholipid Distribution Pattern in the Erythrocyte Membrane of Patients with Hepatitis C and Severe Fibrosis, before and after Treatment with Direct Antiviral Agents: A pilot Study.**
Charalampos Papadopoulos, Maria Panopoulou, Theodora Mylopoulou, Konstantinos Mimidis, Ioannis Tentes, **Konstantinos Anagnostopoulos**
Maedica - a Journal of Clinical Medicine (2020);15(2):162-168.
- 2021** ● ● **12. Estimation of low-density lipoprotein cholesterol by machine learning methods.**
Christina Tsigalou, Maria Panopoulou, Charalambos Papadopoulos, Alexandros Karvelas, Dimitrios Tsairidis, **Konstantinos Anagnostopoulos**
Clinica Chimica Acta (2021);517:108-116.
- 2021** ● ● **13. Validation and application of a protocol for the extraction and quantitative analysis of sphingomyelin in erythrocyte membranes of patients with non-alcoholic fatty liver disease.**
Charalampos Papadopoulos, Konstantinos Mimidis, Ioannis Tentes, Thaleia Tente, **Konstantinos Anagnostopoulos**
JPC - Journal of Planar Chromatography - Modern TLC (2021);34:411-418.

- 14. On the estimation of the molecular inaccessible volume and the molecular accesible surface of a ligand in protein-ligand systems.**
 2021 · · ● Konstantinos Konstantinidis, Ioannis Karakasiliotis, **Kostas Anagnostopoulos** and Georgios C. Boulougouris
Molecular Systems Design and Engineering (2021);6:946.
- 15. Red Blood Cell-Conditioned Media from Non-alcoholic Fatty Liver Disease Patients Contain Increased MCP1 and Induce TNF-alpha Release.**
 2022 · · ● Charalampos Papadopoulos, Konstantinos Miminidis, Dimitris Papazoglou, George Kolios, Ioannis Tentes, **Konstantinos Anagnostopoulos**
Reports of Biochemistry and Molecular Biology (2022);11(1):54-62.
- 16. Nonalcoholic Fatty Liver Disease Patients Exhibit Reduced CD47 and Increased Sphingosine, Cholesterol and Monocyte Chemoattractant Protein-1 Levels in the Erythrocyte Membrane.**
 2022 · · ● Charalampos Papadopoulos, Eleftheria Spourita, Konstantinos Mimidis, George Kolios, Ioannis Tentes, **Konstantinos Anagnostopoulos**
Metabolic Syndrome and Related Disorders (2022);20(7):377-383.
- 17. Vitamin D Status in Osteoporotic and Diabetic Patients and Athletic Healthy Individuals from Northern Greece**
 2022 · · ● Constantine Anetakis, Stella Mitka, Maria Chatzidimitriou, Konstantinos Anagnostopoulos, Phaedra Eleftheriou, Theodoros Lialiaris
Reports of Biochemistry and Molecular Biology (2023);11(4):565-576.
- 18. Unexplored Roles of Erythrocytes in Atherothrombotic Stroke**
 2023 · · ● Charalampos Papadopoulos, Konstantinos Anagnostopoulos, Dimitrios Tsipsios, Stella Karatzetzou, Eirini Liaptsi, Irene Zacharo Lazaridou, Christos Kokkotis, Evangelia Makri, Maria Ioannidou, Nikolaos Aggelousis and Konstantinos Vadikolias
Neurology International (2023);15:124-139.
- 19. Correlation between the in vitro starch digestibility and the glycemic/insulinemic index of biscuits and bread made from non-conventional wholemeal/wholegrain flours**
 2023 · · ● Charalampos Papadopoulos, **Constantine Anagnostopoulos**, Athanasios Zisimopoulos, Maria Panopoulou, Dimitrios Papazoglou, Anastasia Grapsa, Thaleia Tentea and Ioannis Tentes
Mediterranean Journal of Nutrition and Metabolism (2023);16:165-180.
- 20. LDL estimation with equations and machine learning; variance of LDL and plasma atherogenic index.**
 2024 · · ● Petros Paplomatas, Marina Nikolidaki, Aristidis Vrahatis, **Kostas Anagnostopoulos**
Academia Molecular Biology & Genomics (2024);1
<https://doi.org/10.20935/AcadMolBioGen7443>.
- 21. Bayesian subset-based gene selection for biomarker discovery in high- dimensional data.**
 2025 · · ● Petros Paplomatas, Zoi Kyriakou, **Kostas Anagnostopoulos**, Aristidis Vrahatis,
Academia Molecular Biology & Genomics (2025);
<https://doi.org/10.20935/AcadMolBioGen7733>.

- 2025 · · ● **22. Explainable Machine Learning in the Prediction of Depression.**
Christina Mimikou, Christos Kokkotis, Dimitrios Tsiptsios, Lillian Modig, Foteini Christidi, Antonia Kaltsatou, Aspasia Serdari, **Kostas Anagnostopoulos** and Gregory Tripsianis
Diagnostics (2025);15:1412 <https://doi.org/10.3390/diagnostics15111412>.
- 2025 · · ● **23. Innate Immunity Receptor TLR9 Drives Erythrocyte Cholesterol and Ferroprotein Accumulation in a Glutaminase-Independent Manner. Implications for Metabolic Associated Fatty Liver Disease.**
Konstantinos MIMIDIS, Zoi KYRIAKOU, Nikolaos POLITIS, Panagiotis VENIAMIS, Dimitris VLACHOS, Tentes IOANNIS, **Konstantinos ANAGNOSTOPOULOS**, Charalampos PAPADOPOULOSb
Mædica - a Journal of Clinical Medicine (2025);20(2):220-227
<https://doi.org/10.26574/maedica.2025.20.2.220>.
- 2025 · · ● **24. An Artificial Intelligence and Biochemical Modelling Approach for LDL Cholesterol Prediction.**
Petros Paplomatas, Maria Kantartzi, **Kostas Anagnostopoulos** and Aristidis Vrahatis
Medinformatics (2025) <https://doi.org/10.47852/bonviewMEDIN52025919>.