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Academic Position: Associate Professor
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Teaching

A. Undergraduate

Statistics, Programming and Computational Methods, Introduction into Clinical Pharmacy, Pharmaceutical Care, Laboratory practice in “Biopharmaceutics – Pharmacokinetics I”

B. Postgraduate

In several MSc programmes of:

- National and Kapodistrian University of Athens: Pharmacy department, School of Medicine
- University of Patras
- Aix Marseille University

Theses Supervision

PhD

Completed: 4
Ongoing: 6

MSc

Completed: 27
Ongoing: 3

BSc

Completed: 19
Ongoing: 6

Research Interests

Clinical Pharmacy, Pharmacokinetics; Artificial intelligence; Machine learning; In silico clinical trials; Modeling and Simulation; Clinical decision support systems; Precision medicine; Model informed drug development; Bioequivalence studies

Computer skills

- *Programming:* Python, R, Matlab, Fortran, Mathematica, Basic
- Software development: **IVIVS**

Reviewer in international journals

- | | |
|--|--|
| 1. <i>AAPS Open</i> | 11. <i>Biomedicines</i> |
| 2. <i>Advances in Experimental Medicine and Therapeutics</i> | 12. <i>Bioengineering</i> |
| 3. <i>Advances in Therapy</i> | 13. <i>Biosimilars</i> |
| 4. <i>Artificial Intelligence</i> | 14. <i>Biopharmaceutics & Drug Disposition</i> |
| 5. <i>Artificial Intelligence in Medicine</i> | 15. <i>British Journal of Clinical Pharmacology</i> |
| 6. <i>Biology</i> | 16. <i>British Medical Journal</i> |
| 7. <i>Antibiotics</i> | 17. <i>Cancer Chemotherapy and Pharmacology</i> |
| 8. <i>Applied Sciences</i> | 18. <i>Clinical Pharmacology in Drug Development</i> |
| 9. <i>Basic & Clinical Pharmacology & Toxicology</i> | 19. <i>Computers</i> |
| 10. <i>Biochemical Pharmacology</i> | 20. <i>Current Issues in Molecular Biology</i> |
| | 21. <i>Data</i> |

22. *Current Issues in Molecular Biology*
23. *Diagnostics*
24. *Drugs and Drug Candidates*
25. *Drugs in R&D*
26. *Drug Metabolism Letters*
27. *European Journal of Clinical Pharmacology*
28. *European Journal of Pharmaceutical Sciences*
29. *Expert Opinion on Investigational Drugs*
30. *Future Science*
31. *Healthcare*
32. *Information*
33. *Int J Num Methods Biomed Engineer*
34. *Int J Pharmaceutics*
35. *Int J Clin Pharmacology*
36. *International Journal of Environmental Research and Public Health*
37. *International Journal of Molecular Sciences*
38. *Journal of Aerosol Medicine and Pulmonary Drug Delivery*
39. *Journal of Applied Bioanalysis*
40. *Journal of Bioequivalence & Bioavailability*
41. *Journal of Bioequivalence Studies*
42. *Journal of Cardiovascular Development and Disease*
43. *Journal of Clinical Nursing*
44. *Journal of Clinical Pharmacology and Therapeutics*
45. *Journal of Chromatography B*
46. *Journal of Drug Delivery*
47. *Journal of Educational and Behavioral Statistics*
48. *Journal of Pharmaceutical and Biomedical Analysis*
49. *Journal of Pharmacology and Experimental Therapeutics*
50. *Journal of Pharmacy & Pharmaceutical Sciences*
51. *Journal of Pharmacy & Pharmacology*
52. *Life*
53. *Medical Science Monitor*
54. *Medical Statistics Open Access*
55. *Metabolites*
56. *Molecular and Clinical Oncology*
57. *Molecular Medicine Reports*
58. *Molecules*
59. *Multidisciplinary Respiratory Medicine*
60. *Neurology and Therapy*
61. *Oncology letters*
62. *Pathogens*
63. *Pharmaceuticals*
64. *Pharmaceutics*
65. *Pharmaceutical Research*
66. *Pharmaceutical Statistics*
67. *PLOS ONE*
68. *Processes*
69. *Regulatory Toxicology and Pharmacology*
70. *Scientia Pharmaceutica*
71. *Scientific Reports*
72. *Springer Plus*
73. *Statistics in Medicine*
74. *Technologies*
75. *Toxics*
76. *Vaccines*
77. *Xenobiotica*

Oral Presentations: > 52

Poster Presentations: > 120

Peer Reviewed Articles: > 110

(selected publications in the past three years)

1. Karalis V. A Vector Theory of Assessing Clinical Trials: An Application to Bioequivalence. *J Cardiovasc Dev Dis* [2024]
2. Kokkali M, Karalis V. Average Slope vs. Cmax: Which Truly Reflects the Drug Absorption Rate? *Applied Sciences* [2024]
3. Nikolopoulos A, Karalis V. Implementation of a Generative AI algorithm for Virtually Increasing the Sample Size of Clinical Studies. *Applied Sciences* [2024]
4. Karalis V. The Integration of Artificial Intelligence into Clinical Practice. *Applied Biosciences* [2024]
5. Papadopoulos D, Karali G, Karalis V. Bioequivalence Studies of Highly Variable Drugs: An Old Problem Addressed by Artificial Neural Networks. *Applied Sciences* [2024]
6. Karalis V. Machine Learning in Bioequivalence: Towards Identifying an Appropriate Measure of Absorption Rate. *Applied Sci* (2023)
7. Karalis V. On the Interplay between Machine Learning, Population Pharmacokinetics, and Bioequivalence to Introduce Average Slope as a New Measure for Absorption Rate. *Applied Sci* (2023)
8. Karalis V. An In-Silico Approach Toward the Appropriate Absorption Rate Metric in Bioequivalence. *Pharmaceutics* [2023]

9. Kyritsi A, Tagka A, Stratigos A, Pesli M, Lagiokapa T, Karalis V. A retrospective analysis to investigate contact sensitization in Greek population using classic and machine learning techniques. *Adv Exp Med Biol* [2023]
10. Papadopoulos D, Karalis V. Variational Autoencoders for Data Augmentation in Clinical Studies. *Applied Sci* [2023]

Conference Proceedings: 3

Preprints: 2

Book chapters: 5

Articles in National Journals (with Impact Factor): 9