CURRICULUM VITÆ

Kozma, Bence PhD

EXPERIENCE

In the biopharma industry since university graduation. Actively involved in the upstream PAT development of four different biosimilar monoclonal antibodies. Expert in Raman, (N)IR and Dielectric spectroscopy, solid knowledge of Multivariate Data Analysis techniques and bioprocess development.

Stayed in academia and transitioned from monoclonal antibodies to cell therapies. Currently involved in two research projects and building a laboratory for cell therapy process development work.

2024–	Project Assistant, PostDoc, Integrated Bioprocess Development, Technische Universität Wien, Austria
	Involved in a variety of projects in the field of PAT for different bioprocesses and ATMPs
2019–2023	Project Assistant, PostDoc, Bioprocess Technology Research Group, Technische Universität Wien, Austria
	Involved in a variety of projects in the field of PAT for different bioprocesses and ATMPs
2018–2019	R&D Engineer, Upstream dev., Biotechnology R&D, Gedeon Richter Plc., Hungary
	PAT and data scientist
2015–2018	PhD Student, Biotechnology R&D, Gedeon Richter Plc., Hungary
	Conducting spectroscopic experiments related to my PhD work; Involved in PAT development of cell cultivation projects
2013–2015	Internship, Biotechnology R&D, Gedeon Richter Plc., Hungary
	FT-NIR measurements and data analysis of CHO cell cultivations; Application of different analytical techniques to measure glucose in CHO cell cultivations

EDUCATION

2015–2019	Budapest University of Technology and Economics, George A. Olah Doctoral School of Chemistry and Chemical Technology, PhD
	Research field: Application of Near infrared, Raman and dielectric spectroscopies to mammalian cell cultivation monitoring as Process Analytical tools.
2013–2015	Budapest University of Technology and Economics, MSc. in bioengineering, grade: excellent

LANGUAGES

Hungarian (native)
English (fluent)
German (elementary)
French (elementary)

PUBLICATIONS

García Aponte O.F., **Kozma B.**, Egger D., Kasper C., Herwig C. Kinetics of NK-92 growth and functionality in pseudo-static cultures (2023) Biochemical Engineering Journal, 196, DOI: 10.1016/j.bej.2023.108929

Garcia-Aponte O.F., Herwig C., **Kozma B.** Lymphocyte expansion in bioreactors: upgrading adoptive cell therapy (2021) Journal of Biological Engineering, 15 (1)DOI: 10.1186/s13036-021-00264-7

Zalai D., Kopp J., **Kozma B.**, Küchler M., Herwig C., Kager J. Microbial technologies for biotherapeutics production: Key tools for advanced biopharmaceutical process development and control (2020) Drug Discovery Today: Technologies, 38, pp. 9 – 24 DOI: 10.1016/j.ddtec.2021.04.001

Kozma B., Salgó A., Gergely S. On-line glucose monitoring by near infrared spectroscopy during the scale up steps of mammalian cell cultivation process development (2019) Bioprocess and Biosystems Engineering, 42 (6), pp. 921 – 932 DOI: 10.1007/s00449-019-02091-z

Kozma B., Salgó A., Gergely S. Comparison of multivariate data analysis techniques to improve glucose concentration prediction in mammalian cell cultivations by Raman spectroscopy (2018) Journal of Pharmaceutical and Biomedical Analysis, 158, pp. 269 – 279 DOI: 10.1016/j.jpba.2018.06.005

Kozma B., Hirsch E., Gergely S., Párta L., Pataki H., Salgó A. On-line prediction of the glucose concentration of CHO cell cultivations by NIR and Raman spectroscopy: Comparative scalability test with a shake flask model system (2017) Journal of Pharmaceutical and Biomedical Analysis, 145, pp. 346 – 355 DOI: 10.1016/j.jpba.2017.06.070

Kozma B., Párta L., Zalai D., Gergely S., Salgó A. A model system and chemometrics to develop near infrared spectroscopic monitoring for Chinese hamster ovary cell cultivations (2014) Journal of Near Infrared Spectroscopy, 22 (6), pp. 401 – 410 DOI: 10.1255/jnirs.1133

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