



Christos Xiouras, Ph.D.

Johnson & Johnson Innovative Medicine

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PERSONAL STATEMENT

With over seven years of experience in cross-functional process and product development teams and a distinguished academic background, I serve as Senior Manager – Associate Director at Johnson & Johnson, where I introduce innovative, strategic thinking and provide scientific leadership in drug substance and drug product development and manufacturing.

My core competencies include process development, scale-up, technology transfer, and manufacturing, focusing on the synthesis, crystallization, and isolation of complex organic molecules and materials. I apply engineering, chemistry, and material science to tackle multidisciplinary challenges in target product profiles, process and equipment design, analytical methods, process safety and control, and regulatory compliance. I translate complex business objectives into comprehensive scientific plans with clear milestones and tangible outcomes.

Beyond my professional achievements, I thrive on building strong partnerships with diverse teams and external partners, leveraging effective communication and interpersonal skills. I take pride in mentoring colleagues to reach their full potential and continuously advancing my skills to contribute to impactful healthcare innovations.

Outside of work, I enjoy humor, traveling, meeting new people, and engaging in music, cinema, and games.

EMPLOYMENT HISTORY

Johnson & Johnson Innovative Medicine, Beerse, Belgium

- **Senior Manager/Associate Director – Solid State Sciences Group** | Oct 2024 – Present
 - **Leading an interdisciplinary team of ten (10) scientists** within the Pharmaceutical and Material Sciences Department, interfacing between chemical development, analytical development, and drug product development.
 - Managing **administration, budgeting, planning, resource allocation, and strategic direction** for the Pharmaceutical Sciences Department to achieve organizational objectives and operational excellence.
 - Directing **crystallizability assessments, polymorph, salt, and co-crystal screenings**, as well as solid form characterization, selection and property prediction for new drug candidates.
 - Driving both **conventional and advanced formulation development** by evaluating and interpreting the solid-state behavior of APIs in drug products.
 - **Leading cross-functional internal and external consortia** and academic collaborations, driving strategic partnerships and innovation.
- **Principal Scientist – Matrix Lead** | Aug 2022 – Oct 2024
 - Provided **scientific leadership and oversight** in the domain of small molecule drug development and manufacturing activities, covering **process development, scale-up and technology transfer to cGMP manufacturing**.
 - Ensured the team delivered **safe, robust, scalable, cost-effective, and environmentally friendly** manufacturing processes.
 - **Employed innovative and industry-leading practices** to address complex issues such as material attributes (e.g. particle size/shape, polymorphism), physical and chemical stability, analytical

methods, reaction/separation process kinetics, purification and work-up processes, impurity profile management, developability, process equipment design and process troubleshooting.

- **Led internal and external lab and manufacturing teams**, comprising scientists, engineers, PhD students and Postdocs.

○ **Senior Scientist – Crystallization Process Development** | Feb 2019 – Aug 2022

- **Developed, optimized, and transferred new technologies** and processes for synthesis and isolation of complex organic molecules and materials.
- **Streamlined entire lab operations**, including equipment commissioning, workflow development, safety training and administration, in line with set policies.
- **Ensured physical and chemical material attributes** (e.g. purity, solid form, particle size and bulk properties, among others) are **in-line with desired drug product performance** requirements by relating **advanced analytics** to process operating windows.
- **Enabled deep process understanding and troubleshooting** through introduction of state-of-the-art **(Process) Analytical Technologies** in combination with first-principles thermodynamic/kinetic and/or data-driven models.
- **Pioneered novel technologies/methods** for advanced process research and manufacturing (e.g. process intensification, particle engineering, high-throughput screening and experimentation, lab automation and machine learning, among others).
- Formulated and monitored **project and process risks, mitigations**, and critical path items, as well as **CMC documentation**, ensuring the successful completion of projects while maintaining regulatory compliance.
- Provided **on-the-job mentorship and guidance** for six scientists.

University of Leuven (KU Leuven), Leuven, Belgium

○ **Visiting Scholar** | May 2019 – Aug 2022

- **Collaborated with faculty and research teams** on interdisciplinary chemical engineering projects.
- **Co-taught courses, conducted seminars**, and mentored undergraduate and graduate students in research.
- Prepared and reviewed **proposals, manuscripts, and scientific presentations**.
- Served as **(Guest) research editor** for academic journals.
- Co-supervised and **hosted six (6) Ph.D. students**, providing guidance and mentorship.

○ **Ph.D. Researcher** | Feb 2015 – Jan 2019

- Developed, optimized, and modeled highly efficient **novel crystallization processes** to tackle enduring challenges in the separation and conversion of enantiomers for the pharmaceutical industry.
- Leveraged deep understanding of the underlying chemistry and applied first-principles modelling and **advanced analytical techniques** to achieve outstanding results in terms of process efficiency and product quality, setting new standards in the field.

CMAC Future Manufacturing Research Hub, Glasgow, United Kingdom

Visiting Researcher | Apr 2018 – Jul 2018

- Transformed chiral crystallization process development with the use of cutting-edge (process) analytical technologies and data-driven modelling, achieving a deep understanding of the underlying thermodynamic/kinetic principles, and driving significant advancements in the field.

CB&I Company, The Hague, The Netherlands

Process Engineer | Sep 2013 – Jan 2014

- Designed algorithms to facilitate efficient design of Pressure Safety Systems interfacing thermodynamic process simulators with Excel VBA.
- Presented various results and recommendations to senior management.

Hellenic Army Chemical Laboratories, Athens, Greece

Engineering Scientist | Nov 2011 – Jul 2012

- Served in the Hellenic Army Chemical Laboratories, demonstrating dedication during compulsory military duty.
- Developed and applied analytical methods for quality control of army textiles and fuels, enhancing safety and operational success.
- Prepared labs for ISO/IEC17025 assessment, ensuring compliance with rigorous industry standards through meticulous organization and attention to detail.

EDUCATION

University of Leuven (KU Leuven), Leuven, Belgium

Ph.D. Chemical Engineering (summa cum laude distinction) | Feb 2015 – Jan 2019

4-year personal Ph.D. Fellowship award by the Research Foundation – Flanders (FWO), success rate: <18%.

Delft University of Technology (TU Delft), Delft, The Netherlands

M.Sc. Sustainable Energy Technology (GPA: 8.1/10 – top 10%) | Aug 2012 – Sept 2014

National Technical University of Athens (NTUA), Athens, Greece

B.Sc. & M.Sc.: Chemical Engineering | Sept 2005 – Jul 2011

EXTERNAL RESEARCH PROJECTS – RECENT FUNDING ACQUIRED

- **2025-2028:** Title: “Crystallisation towards efficient and sustainable biomanufacturing” (PROCRYSTAL)”, Role: Principal investigator, Project number: 101169471, Total Funding amount: **EUR 3,285,662.40**, Granting Organisation: Horizon Europe, Marie Skłodowska-Curie Actions (MSCA).
- **2024-2026:** Title: “Co-processing APIs with excipients for improved downstream processability and formulation”, Role: Principal investigator, Total Funding amount: **EUR 412,873.39**, Organisations: Enabling Technologies Consortium (ETC) and Porton/J-Star.
- **2020-2024:** Title: “Towards Autonomous Crystallization Systems through Advanced Process Modelling and Control”, Role: Principal investigator, Project number: HBC.2020.2214, Funding amount: **EUR 428,500.00**, Granting Organisation: Co-financed (50%/50%) by Flanders Innovation & Entrepreneurship Agency (VLAIO) and Johnson & Johnson Innovative Medicine.
- **2016-2020:** Title: “A Model-based Approach to Unravel the Driving Forces in Attrition-Enhanced Deracemization Processes”, Role: Lead Scientist, Project number: 11A3919N, Funding amount: € **EUR 150,000.00**, Granting Organisation: Research Foundation-Flanders (FWO).

FELLOWSHIPS

- **2016-2020:** 4-year personal Ph.D. Fellowship by the Research Foundation – Flanders (FWO), success rate: <18%, EUR 150,000.
- **2018:** Long stay research Fellowship by the Research Foundation – Flanders (FWO), EUR 5,100.
- **2017:** Trainee Grant by EU COST Action Crystallize CM1402, EUR 810.
- **2016:** Travel Grant by the Research Foundation – Flanders (FWO), EUR 1,000.
- **2015-2016:** KU Leuven Ph.D. Fellowship (FLOF mandate), EUR 50,000.

HONORS & AWARDS

- **2021:** Janssen R&D Award: Vice President's Award for Outstanding Technical Achievement in Support for Scientific Research and Development (<15 recipients across Janssen global R&D).
- **2020-2024:** Three times recipient of Johnson & Johnson Long Term Incentive (LTI) awards.
- **2021:** Two-times winner of Janssen Innovation Leadership Award (2% success rate).

- **2020 – 2021:** Exceeding goals/objectives for two consecutive years (< 2-3% of employees) in yearly performance reviews at Johnson & Johnson.
- **2019-2022:** Fourteen-times winner of Johnson & Johnson Inspire cash awards for outstanding contribution in projects and exhibition of leadership qualities.
- **2019:** Ph.D. Award: **summa cum laude** with the congratulations of the examination committee (strictly awarded to <5% of total Ph.D. recipients at KU Leuven).
- **2018:** Front Cover Journal art design for CrystEngComm.
- **2016:** Best poster presentation award in Crystal Nucleation Summer School (among 70 participants) by the Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS).
- **2014:** Postgraduate M.Sc. study honor list (top 10%), TU Delft.

SKILLS

- **Analytical-thinking and problem-solving skills.**
- **Communication skills:** Teaching, Tutoring, Presenting, Academic/Technical Writing.
- **Team, stakeholder, quality, and risk management.**
- **Budgeting, planning, and scheduling.**
- **Transferable skills (acquired through courses and experience):** Project management, Networking, Interpersonal Skills, Time and Self-Management, Health Safety & Environment, Effective Communication among others.
- **Data collection, analysis, and visualization skills for knowledge discovery.**
- **Software:** Proficient in MS Excel, PowerPoint, and Word, MATLAB, Familiarity with data visualization tools (e.g., Tableau and Power BI). Experience with Statistics / Machine learning and numerical optimization algorithms.
- **Languages:** Greek (native), English (C2), Dutch (B2), German (B1).

PUBLICATIONS IN PEER-REVIEWED INTERNATIONAL SCIENTIFIC JOURNALS

I am the (co-)author of a total of **twenty-six (26) published articles** in international peer-reviewed scientific journals, and **four (4)** international patents. My h-index is **15** with a total of **758 citations** (source: Google Scholar, Jan 2025). The complete list of my publications can be found [here](#).

REFERENCES UPON REQUEST
