Curriculum Vitae

Personal information

Name: Manon Minsart

Date of birth: July 14th 1995

Nationality: Belgian

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Profile

Doctor in Chemistry with a passion for polymer materials, more specifically hydrogels for bio-related applications and radiation protection

Skills: chemical characterization of materials, polymer synthesis and modifications, hydrogels, biomaterials, electrospinning, DLP printing, functionalization of materials

Hobbies: Vespa touring (member of VC Ath), cooking, swimming and board games

Language skills: Dutch (native), English (very fluent), French (fluent) and Italian (basic-fluent)

Education

Sept 2016 – July 2018	*Master of Science in Chemistry (cum laude)* Ghent University, Belgium Major: Molecular and Macromolecular Design Minor: Research and Development
Sept 2013 – Sept 2016	*Bachelor of Science in Chemistry* Ghent University, Belgium Major: Research profile

Work experience

1st July 2023 – present	*Post-doctoral assistant (DA)* Ghent University, Belgium

Polymer Chemistry and Biomaterials research group

1st Jan 2019 – 30th June 2023	*Doctor in Science: Chemistry* Ghent University, Belgium Polymer Chemistry and Biomaterials research group PhD titled: "Design of Hydrogel Precursors for Advanced Burn Wound Dressing Matrices" Supervisors: Prof. Dr. Peter Dubruel, Prof. Dr. Arn Mignon and Prof. Dr. Sandra Van Vlierberghe Date of public defense: 4th May 2023 Scholarship: Strategic basic PhD research (FWO-SB) grant from Research Foundation Flanders "FWO" (01/2019-12/2022)

Publications

Until now, I have (co-)authored nine published A1 research papers. Another paper is currently under review/revisions.

M. Minsart[μ], A. Mignon[μ], I.U. Allan, A. Arslan, S. Van Vlierberghe, P. Dubruel. Activated Carbon Containing PEG-Based Hydrogels as Novel Candidate Dressings for the Treatment of Malodorous Wounds. Macromolecular Materials and Engineering. Volume 306, Issue 1, Article number 2000529. Published: JAN 2021. Impact factor: 4.402. Peer-reviewed. μ = joint first authors.

M. Minsart, S. Van Vlierberghe, P. Dubruel, A. Mignon. Commercial wound dressings for the treatment of exuding wounds: an in-depth physico-chemical comparative study. Burns & Trauma. Volume 10. Article number tkac024. Published: JUNE 2022. Impact factor: 5.711. Peer-reviewed.

O. M. Ionescu[μ], A. Mignon[μ], **M. Minsart**, S. E. Giusca, I. Gardikiotis, S. Van Vlierberghe and L. Profire. Acrylate-endcapped urethane-based hydrogels: An in vivo study on wound healing potential. Materials Science & Engineering C- Materials for Biological Applications. Volume 130. Article number: 112436. Published: NOV 2021. Impact factor 7.328. Peer-reviewed. μ = joint first authors

M. Minsart[μ], N. Deroose[μ], L. Parmentier, S. Van Vlierberghe, A. Mignon and P. Dubruel. Fine-Tuning the Endcap Chemistry of Acrylated Poly(Ethylene Glycol)-Based Hydrogels for Efficient Burn Wound Exudate Management. Macromolecular Bioscience. Article number: 2200341. Published: NOV 2022. Impact factor: 5.859. Peer-reviewed. μ = joint first authors

O. M. Ionescu[μ], A. Mignon[μ], **M. Minsart**, J. Van Hoorick, I. Gardikiotis, I.-D. Carntu, S. E. Giusca, S. Van Vlierberghe and L. Profire. Gelatin-Based Versus Alginate-Based Hydrogels: Providing Insight in Wound Healing Potential. Macromolecular Bioscience. Volume 21. Issue 11. Article number: 2100230. Published: SEP 2021. Impact factor 5.859. Peer-reviewed. μ = joint first authors

D. Berdecka, **M. Minsart**, T. Lu, D. Punj, R. De Rycke, M. Nikolić, E. Bolea-Fernandez, F. Vanhaecke, R. Xiong, S. C. De Smedt, P. Dubruel, W. H. De Vos and K. Braeckmans. Photothermal nanofibers enable macromolecule delivery in unstimulated human T cells. Applied Materials Today. Volume 35. Published: DEC 2023. Impact factor 8.3. Peer-reviewed. DOI: 10.1016/j.apmt.2023.101991

E. De Vlieghere, K. Van de Vijver, E. Blondeel, N. Carpentier, R. Ghobeira, J. Pauwels, S. Riemann, **M. Minsart**, C. Fieuws, J. Mestach, A. Baeyens, N. De Geyter, C. Debbaut, H. Denys, B. Descamps, K. Claes, A. Vral, J. Van Dorpe, K. Gevaert, B. G. De Geest, W. Ceelen, S. Van Vlierberghe & O. De Wever. A preclinical platform for assessing long-term drug efficacy exploiting mechanically tunable scaffolds colonized by a three-dimensional tumor microenvironment. Biomaterials Research. Volume 27. 104. Published: OCT 2023. Impact factor 11.3. Peer-reviewed. DOI: 10.1186/s40824-023-00441-3

C. Darroch$^{\mu}$, F. Digeronimo$^{\mu}$, G. Asaro, **M. Minsart**, N. Pien, S. Van Vlierberghe and M. G. Monaghan. Melt electrowriting of poly(ϵ-caprolactone)—poly(ethylene glycol) backbone polymer blend scaffolds with improved hydrophilicity and functionality. Biomedical materials. Volume 19. 5. Published: JULY 2024. Impact factor: 4.0. Peer-reviewed. DOI: 10.1088/1748-605X/ad5b41. μ = joint first authors.

I. Roegiers, T. Gheysens, **M. Minsart**, P. De Clercq, K. Vanbeversluys, N. Rać, G. Stroka, J. de Croock, T. Van de Wiele, P. Dubruel and M. Calatayud Arroyo. GelMA as scaffold material for epithelial cells to emulate the small intestinal microenvironment. Scientific Reports. 15, 8214. Published: MARCH 2025. Impact factor: 3.9. Peer-reviewed. DOI: 10.1038/s41598-024-81533-5.

Conference contributions

Oral presentations

- Chemistry Conference for Young Scientists (ChemCYS2020), Blankenberge, Belgium, Feb 2020
'Development of a hydrogel-based odour-sorbing wound dressing'

- European Polymer Forum Conference (EPF2022), Prague, Czech Republic, June 2022
'Fine-tuning endcap chemistry of AUP-based hydrogels for effective exudate management'

- Alumni Day of the Centre of Macromolecular Chemistry (CMaC), Ghent, Belgium, Sept 2022
'Fine-tuning the endcap chemistry of acrylated poly(ethylene glycol)-based hydrogels for the treatment of burn wounds'

- Chemical Research in Flanders – Chemistry Conference for Young Scientists (CRF-ChemCYS2022), Blankenberge, Belgium, Oct 2022
'Fine-tuning the endcap chemistry of acrylated poly(ethylene glycol)-based hydrogels for the treatment of burn wounds'

- Annual meeting of the Belgian Polymer Group (BPG2022), Blankenberge, Belgium, Nov 2022
'Towards a diagnostic acrylated poly(ethylene glycol)-based hydrogel wound dressing for the treatment of burn wounds'

- World Biomaterials Congress (WBC2024), Daegu, Republic of Korea, May 2024
'Blue biomaterials: exploring the potential of alginate and collagen extracted from aquatic waste products to serve the biomedical field'

- European Society for Biomaterials Conference (ESB2025), Turin, Italy, Sept 2025
'Blue biomaterials: incorporation of jellyfish skin polysaccharides into poly(ethylene glycol)-based hydrogels for accelerated wound healing'

Flash talks/pitches

- European Wound Management Association Conference (EWMA2022), Paris, France, May 2022: 3 minute pitch

- European Society for Biomaterials Conference (ESB2022), Bordeaux, France, Sep 2022: 5 minute flash talk

- Macromolecular Chemistry and Soft Matter Connects Symposium, Aachen, Germany, June 2024: 1 minute pitch

Poster presentations

- European Society for Biomaterials Conference (ESB2021), Porto, Portugal, Sep 2021 (online due to COVID)
'A comparative study of AUP-based hydrogel wound dressings and commercial dressings for the treatment of exuding wounds'

- European Wound Management Association Conference (EWMA2022), Paris, France, May 2022
'A comparative study of novel hydrogel dressings and commercial wound dressings for the treatment of exuding wounds'

- European Society for Biomaterials Conference (ESB2022), Bordeaux, France, Sep 2022
'Development of intelligent hydrogel-based burn wound dressings'

- Macromolecular Chemistry and Soft Matter Connects Symposium, Aachen, Germany, June 2024
'Development of intelligent hydrogel-based burn wound dressings'

- Advanced Functional Polymers for Medicine 2025 (AFPM 2025), Ghent, Belgium, June 2025
'*Customizable acrylate-endcapped urethane-based polymers: versatility in digital light processing for advanced biomedical solutions'*

- International Seaweed conference Seagriculture EU 2025, Rotterdam, the Netherlands, June 2025
'Photo-crosslinkable alginate derivatives for biomedical applications'

Research stays/Awards

Research stay

March 12th – April 6th 2018: Internship at the University of Brighton, Brighton, United Kingdom

Cell culturing, in vitro biocompatibility testing of hydrogels

Awards

2022/10: Oral presentation award in the Functional Materials session at the CRF-ChemCYS 2022 conference in Blankenberge, Belgium

2024: Julia Polak European Doctoral Award

Doctoral Schools and Courses

- European Wound Management Association: Medical training

- Research to market

- Light and Fluorescence Microscopy

- Effective Scientific Communication

- Effective Graphical Displays

- Post-doc Grant Writing Course

- Basic Assistant Training (three modules)

- "Let's Talk Science" Summer School (July 2020)

- Radiation protection research for space applications – SCK CEN

Student Mentoring

Bachelor and Master students

- Josefien Schietse (Master Thesis, second semester, Biomedical Engineering, 2018-2019)

- Nicolas Deroose, Laura Govaert and Aleksandra Stojek (Bachelor project, Chemistry, 2019-2020)

- Inneke De Mesmaeker (Master Thesis, Chemistry, 2020-2021)

- Nicolas Deroose (Master Thesis, Chemistry, 2021-2022)

- Shangrilla T. Seposo (Master Thesis, second semester, Aquaculture, 2022-2023. Received the VLIR-UOS Thesis Award)

- Britt Verschueren (Master Thesis, Pharmaceutical Care, 2023-2024)

- Robbe Van Ryckeghem and Tibo Felix (Bachelor project, Chemistry, 2023-2024)

- Antoine Lescroart, Emily Wauters and Emanuel Stanoiu (Vakoverschrijdend bachelor project (VOP), Biomedical Engineering, 2023-2024)

- Jose Miguel Franchi (Master Thesis, Aquaculture, 2023-2024)

- Kato Willems (Master Thesis, Biomedical sciences, 2024-2025)

- Alex Hilven (Master Thesis, Biomedical Sciences, 2024-2025)

- Veronica Salvini (Master Thesis, Biomedical Engineering, 2024-2025)

- Clara Rousseaux (Master Thesis, Bio-engineering Cel & Gen, 2024-2025)

- Hannah Meuleman (Master Thesis, Chemistry, 2024- 2025 and 2025-2026)

PhD students:

- drs. Noemi Scacciati (PhD student University of Pisa (IT), research stay, Sept 2023-Dec 2023)

- Co-promotor of the PhD of Ing. Veerle Boterberg

- Co-promotor of the PhD of Sasini Yashoda Weerasinghe (FWO strategic basic grant)

- Co-promotor of the PhD of Jose Miguel Franchi (FWO strategic basic grant)

- Co-promotor of the PhD of Xintao Yan

Other Scientific Activities

- Reviewer for “Journal of Materials Science: Materials in Medicine”, “Carbohydrate Research”, “RSC Advances”, “European Polymer Journal” and “Burns and Trauma”

- Conference co-chair for the "Biomaterials for Orthopaedic Applications III" session at ESB2021 and the ‘Hydrogel I’ session at WBC2024

- Conference co-chair and organizer of the “Biopolymers from marine sidestreams as wound dressings” session at ESB2025

- Day of Science (“Dag van de wetenschappen”)

- Organization of the YOUCA-day and the BSTE and AMBA conferences (100-150 participants)

- Organization of the annual meeting of the Belgian Polymer Group (BPG2024)

Memberships

- EWMA (European Wound Management Association)

- ESB (European Society for Biomaterials)

- BPG (Belgian Polymer Group)

- Chemica (supporting member for student association of chemistry students at Ghent University)