## Curriculum vitae

# Anton A. A. Smith

#### **EDUCATION**

PhD, Chemistry 2015

Aarhus University - Denmark

Thesis Title: Antiviral Polymer Therapeutics: Design and Development of Drug-Polymer Conjugates

MSc, Medicinal Chemistry 2013

Aarhus University - Denmark

Thesis Title: Development and design of antiviral polymer therapeutics

BSc, Medicinal Chemistry 2009

Aarhus Unviersity - Denmark

Thesis Title: Radiolabelling of Caspofungin

#### PROFESSIONAL EXPERIENCE

### Supramolecular (bio)materials lab, Stanford University.

Aug 2017 - Present

Research Advisor: Prof. Eric Appel

Visiting Scholar. My current research is centered on the opportunities at the interface of synthetic polymers and natural proteins. Utilizing statistical control of polymer composition to explore bioapplications of (dis)ordered polymers for applications in cancerimmunology, biopharmaceutical excipients, and immunomodulation.

## Ting Xu Lab, University of California, Berkeley.

Mar 2016 - Jul-2017

Research Advisor: Prof. Ting Xu

Postdoc position. I synthesized amphiphilic polymers, capable of solubilizing water soluble enzymes in organic solvents, while establishing a framework for simulations of polymerizations. These studies sparked a surge of research into heteropolymers, inspired by polymers mimicking intrincically disordered proteins.

#### Medicinal Polymer Chemistry Lab, Aarhus University, Denmark.

Aug 2010 - Nov 2015

Research Advisors: Prof. Alexander N. Zelikin

PhD and Postdoc. Synthesizing more than 200 polymer-prodrug conjugates, I vastly expanding the field of antiviral polymer-based drug delivery. This was done with high-throughput methods in polymer synthesis, in collaboration with the Commonwealth Science and Industrial Research Organization (CSIRO), Australia.

## MEETING and CONFERENCE PRESENTATIONS

"Practical Prediction of Heteropolymer Composition and Drift" **A. A. A. Smith**, V. Wu, A. Hall, T. Xu, E. Appel *AIChE meeting*, Orlando, United States, November 2019 (Oral, Invited talk).

"Catching the compositional drift" **A. A. A. Smith**, V. Wu, A. Hall, T. Xu, E. Appel 256th ACS meeting, Boston, United States, August 2018 (elected talk).

"Expanded Opportunities with SMA through Controlled Polymerizations and Functionalization" **A. A. A. Smith**, H. Autzen, T. Laursen, V. Wu, A. Hall, T. Xu *Berkeley SMALP Conference* 2017, United States, March 2017 (Invited talk).

"Protein-Mimetic Materials based on Styrene-Maleic Anhydride Copolymers" **A. A. A. Smith**, V. Wu, A. Hall, S. Darnall, M. Puga, T. Xu *253rd American Chemical Symposium*, San Francisco, United States, April 2017 (Selected talk).

"Rational design of antiviral macromolecular prodrugs" **A. A. A. Smith**, C. Guerrero-Sanchez, A. Postma, A. N. Zelikin. 10th International Symposium on Polymer Therapeutics, Valencia, Spain, May 2014 (Selected talk).

"Antiviral Polymer Therapeutics: Polymer Prodrug Design for Hepatitis C" A. A. A. Smith, M. Kryger, K. F. Rasmussen, A. N. Zelikin. *Australasian Polymer Symposium*, Hobart, Tasmania, Australia, Feb 2012 (Selected talk). "Catching the

compositional drift in controlled radical polymerizations" A. A. A. Smith, V. Wu, A. Hall, T. Xu, E. Appel *World Polymer Congress Macro18*, Cairns, Australia, July 2018 (Selected talk).

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#### PUBLIC OUTREACH

Blogs about public perception of chemistry, and science communication in media. *www.scienceblog.dk*Answers questions for the scientific Q&A column *Spørg Fagfolket* in the Danish newspaper *Ingeniøren*.
Participated in the outreach program "Book a scientist", giving talks in primary- and high schools.

2016 - Present 2018 - Present Mar 2014

## AWARDS and SCHOLARSHIPS

Sapere Aude - Research Leader from the independent research fund of Denmark (DFF-FTP)

Mar 2021 - Jul 2024

To the project "Immunogenic Polymer-Lipid Nanodiscs"

BioX - Novo Nordisk Foundation Visiting Scholar fellowship

To the project "Enhancing Biopharmaceuticals Through Modern Polymer Science"

Aug 2018 - Aug 2021

Individual postdoc scholarship from the independent research fund of Denmark (DFF-FTP)

Mar 2016 - Jul 2018

To the project "Advanced Polymer-Protein Hybrids"

Sapere Aude research talent prize from the independent research fund of Denmark (DFF) 2015

Alfred Benzon Postdoctoral scholarship 2015

Awarded and declined

## LEADERSHIP EXPERIENCE

**Teaching assistant** in both lecture and laboratory practical settings:

- Organic Chemistry and Inorganic Chemistry (2011 - 2014)

- Medicinal Polymer Chemsitry (2012 - 2014)

#### Students mentored

This list denotes their highest designation during my mentorship.

Master Students Graduate Students

Thomas Hussmann, Aarhus University.

Oliver Pilgram, Aarhus University.

Kasper F. Rasmussen, Aarhus University.

Camilla F. Riber, Aarhus University.

Søren Lykke, Aarhus University.

Raoul Walter, Aarhus University.

Frank K. Larsen, Aarhus University.

Aaron Hall, University of California, Berkeley.

Max Yen, University of California, Berkeley. Joseph L. Mann, Stanford University.

*Undergraduate Students* 

Bente K. Hansen, Aarhus University.

Vincent Wu, University of California, Berkeley