

## Curriculum Vitae

Rana Al Hussainy was born on October 14th, 1976 in Baghdad, Iraq. At the age of 19, she moved to Amsterdam, and attended the University of Amsterdam to study Chemistry at the department of Van't Hoff Institute for Molecular Sciences, and received her Master's degree in Molecular Design, Synthesis and Catalysis in 2006. At the same time she studied at the department of Medicinal Chemistry, VU University, Amsterdam and received her second Master's degree in Pharmaceutical Science.

She started her PhD training at the VU University Medical Center, Amsterdam in 2006, working at the department of Nuclear Medicine & PET Research- Radionuclide Center. Soon, Rana is going to start her post doctorate training as senior research associate at the Children's Hospital of Michigan-USA.

---

---

## Acknowledgments

During 4 years research, each time this research reached to a dead end, I was taking a break and let myself free to dream of this moment, the moment that I will write the last page of this thesis, the Acknowledgement! It was the best therapy to take me through hard times especially when chemical reactions were not working as expected, and helped to bring my big smile back to my face. Now, the moment is there! This page is not only for appreciations it is full of memories as I am now picturing everyone who supported me even with a good morning smile. Hereby, I would like to show my gratitude to all my colleagues, family and friends for their support as I would like to thank some of them by names.

First of all, I would like to thank my promoters prof. dr. Guus van Dongen, prof. dr. Jan Booij and my copromoter- supervisor, dr. Koos Herscheid. Dear Guus, thank you for all those useful discussions to make this thesis possible. Dear Jan, from you I have learned many things, but the most important was how to think positively and enjoy the moments of success. Koos my dear, I am heartily thankful to your encouragement, guidance and support from the initial to the final level who enabled me to develop an understanding of the subject. There were moments that I was disagreeing with you, but all your comments and good discussions helped me a lot to improve this work.

Prof. dr. Adriaan Lammertsma and prof. dr. Josee Leysen, you were indirectly involved in this project. It is a pleasure to thank you for your contribution.

Besides my advisors, I would like to thank the rest of my thesis committee: dr. Albert Windhorst, prof. dr. Philip Elsinga, prof. dr. Rob Leurs, prof. dr. Dick Veltman, prof. dr. ir Romano Orru and dr. Jan Passchier, for their encouragement and insightful comments. As well as, I would like to thank the members of the STW users committee for their contribution to my research.

My appreciation goes to many of my colleagues who support me. Dr. Carla Molthoff, dr. Mark Huisman, Rob Klok, Hans Buiters, Inge de Greeuw, Mariska Verlaan, Martien Mooijer, Joost Verbeek and Dion van der Born.

I warmly thank Greet Stolker-Bouknecht, the SVD members, and the ID members for their friendly help. Special thanks to Jan Boesten and Roy van der Valk.

## Acknowledgments

---

Further, I would like to thank everyone from the department of Nuclear medicine & PET research, section radiopharmaceutical chemistry for their pleasant cooperation and interesting scientific discussions. As I also would like to thank my colleagues from Cyclotron BV for their kind support. Fortunately, it was not only the radiopharmaceutical section. From the division of medicinal chemistry-VU, my sincere thanks also go to dr. Maikel Wijtmans for all enthusiasms and useful scientific discussions, prof. dr. Martine Smit and Saskia Nijmeijer for giving me the opportunity to use the department equipment for the *in vitro* binding experiments.

I wish to thank my entire extended family for providing a loving environment for me. My brother, my sister, my sister-in-common-law, my brother-in-common-law my friends Sara, Reem and Mohamed, they were all particularly supportive.

Lastly, and most importantly, I wish to thank my Mother, Widad Mohamed. She borne me, raised me, supported me, taught me, and loved me. To her I dedicate this thesis.

Rana Al Hussainy

Amsterdam, January 23, 2012.