List of Publications


2. Nur Alia Oktaviani, Michael W Risør, Young-Ho Lee, Rik P Megens, Djurre H de Jong, Renee Otten, Ruud M Scheek, Jan J. Enghild, Niels Chr Nielsen, Takahisa Ikegami, Frans A.A. Mulder. “Rapid Acquisition of Multidimensional NMR Data for a Highly Fibrillogenic Peptide by Optimized Co-Solute Paramagnetic Relaxation”. To be submitted


6. Trijntje J. Pool, Nur Alia Oktaviani, Hironari Kamikubo, Mikio Kataoka and Frans A. A. Mulder. “1H, 13C, and 15N resonance assignment of Photoactive Yellow Protein”. Biomol NMR Assign. 7(1):97-100. The data was deposited in the BMRB with ID 18122


Acknowledgement

Alhamdulillahirabbil 'alamîn........it has been a long and incredible journey during my PhD. I have learned and experienced many new things and met a lot of people. I know what I have achieved in during my PhD period is like a drop of water in the large of ocean of knowledge. I feel so grateful that I have finished my PhD although it is only one big milestone for me. The end of one journey is always the beginning of another one.

The research presented in my PhD dissertation would have not been possible without contribution, help and support from many people whom I have been interacting, working, and collaborating. It is my great pleasure to express my deepest gratitude to all people who are directly and indirectly involved in my work during my PhD.

I would like to thank to my supervisor, Prof Frans A.A Mulder. Dear Frans, I remember that it was in 2007 when I decided to do my master research in your group. However, I felt like 6 months master research project was not enough for me. The more I learned, the more questions I had. I was so happy when I got an offer to do PhD research in your group and learned more about this field. I enjoyed all my learning process during my PhD. It was very great pleasure for me when you introduced me to worldwide collaborations, including those in Japan and in USA. I was very grateful when you allowed me to do 6 month research in Japan, the country where my husband was conducting his PhD research. This was like a win-win solution, in which I could obtain a new research culture experience, get new collaborators and stay closer with my husband. All the process that I had experienced so far is not only about gaining knowledge about protein NMR itself, but also about how I can be more mature in conducting scientific research.

I would like to thank to my lecturer, Dr. Ruud M Scheek. Dear Ruud, personally to say, you are my best teacher I’ve ever met. I am amazed with your dedication in teaching and how you want to make all students understand with your message, even by performing some simulations using Mathematica®. I could not count how many times I have asked you questions related about my research or just my curiosity about many NMR papers. I remember that in the beginning of my master research, I was a little bit worried if I can do research well in this field although I really wanted to learn about it. However, when you said “you can always learn” and you were very welcome to be my lecturer, this really made me feel relief. Ruud, now I can be this far in doing my research, although I still need to learn more and more, since learning is a never ending process. Thanks a lot for many helps that you gave me and also for the enjoyable discussions. I hope we are still keep in touch in the future.

I also would like to thank to my promotor, Prof. Siewert-Jan Marrink. Dear Siewert, I felt so fortunate to be a part in your group. Even, when I was still a master student and did a small project in your group, I felt that this was the best group I had
experienced so far (and I was sure, some my friends have same thought with me). I learned a lot by joining many group meetings. I would like to acknowledge people in your group: Djurre de Jong….thanks a lot for showing me how to conduct few NMR experiments in the beginning of my PhD. It was really nice to know you and we had such a nice coincidence to have daughters who were born in close date. Have a great success and happiness in the future with your family. I also would like to specially thank Cesar (and also Jeanette and little Andre). It was really great time to know you, especially the tough time when we had to pass our TopMaster program. Good luck for your career and family. 

I would like to thank Prof. Dirk-Jan Slotboom, Prof. Rolf Boelens and Prof. Marcellus Ubbink to be part of the assessment committee for my dissertation. 

I would like to thank Prof. Bert Poolman and again Prof. Dirk-Jan Slotboom for your lab facilities that I had used to prepare my NMR samples during my PhD and for the supervision of my master research. I experienced a lot of joyful time in your group as well. I was really happy that my master research about Selenomethionine was turned out to be successful work. I also would like to thank Ria, Gea, Nadia, Akira (thanks a lot for introducing me to Prof. Satoshi Ogihara from Osaka University), Nobina, Dr. Armagan Kocer, Jeanette, Ronnie, Josy, Anton, Frans, and to all member from Enzymology group for your valuable help. 

I would like to thank Alex (my lecturer in MD group when I was master student), Xavier, Clement, Floris, Jaako, Manel, Marcelo, Durba, Monica, Tsjerk, Helgi, Andrejz, Martti, Nicu, Daniela, Shanty (I remember I did a short master project with you and Frans. It was the most enjoyable Top master project that I had experienced so far), and Hilda (thanks for helping me with some administration procedures). It was really a great time for me to know all of you. 

My special thanks go to Renee and Kamil. Both of you are really talented people that inspired me. I learned a lot from you. Renee, many thanks for teaching me some experiments. I wish you success for your career and life. 

For two ex-postdoctoral ladies in NMR group: Katy and Mieke. Thanks a lot for everything. It was nice time to know you. Katy, I wish I can visit and collaborate with you in Australia. Mieke, success with your career and family. 

I would like to thanks to former master and bachelor students in NMR group: Jelle, Auke, Fenneke, Gergana and Martijn. It was really a nice time to know all of you. Dear Jelle, I remembered that we attended NMR courses together in Utrecht and Nijmegen. Thanks for introducing me to Sudoku game (and I became addicted after that). Heel veel success met uw familie en carrière. 

My special thank goes to Trijnia J Pool. It was really great time when you did master research in NMR group. You are very talented and responsible student, so that we were very productive when we worked together. Thanks a lot for many enjoyable discussions (not only about NMR 😊) and your kindness to be my paranimf.
I would like to acknowledge Pieter and Klaas, two technicians in the NMR lab. Thanks a lot for your kindness and support during my research. I think you are among the most wanted persons in the building, since every day many people always look for your help.

I would like to acknowledge my collaborator in Harvard University, USA: Prof. Dominic M Walsh and Tiernan O’Malley who have provided me Aβ samples for NMR measurement. I really enjoyed doing this project, since I gained more insight into neurodegenerative diseases. I wish we can still continue our collaboration in the future.

From western countries, now I would like to go to Japan, a beautiful country in the far-east. My special thank goes to Prof. Takahisa Ikegami, which had supervised me during 6 months research in your group at the Institute for Protein Research, Osaka University. Dear Ikegami-sensei, it was really wonderful time during my 6-months research there. I really enjoyed all my experiences there and many discussions with you. In this occasion, I would like also to acknowledge Dr. Young-Ho Lee, Yoshitaka Aisu, Shuji Kaieda, Daisuke Yokogawa, Okumura-sensei, Hioraki Tanaka, and Ryota Mizushima. Thanks for many help and friendship that you conveyed.

I would like to thank to Prof. Satoshi Ogihara who introduced me to Osaka University and opened opportunity for me to do a 6-months-research there.

I also would like to acknowledge my collaborator from Nara Institute and Technology, Japan: Prof. Mikio Kataoka and Prof. Hironari Kamikubo. Thanks a lot for your beautiful samples, $^{13}\text{C},^{15}\text{N}$) PYP and also $^{12}\text{C}$-Tyr PYP. I think this was very productive collaboration and this protein is also a good example to study electrostatic interactions.

My special thanks go to Prof. Ellen Nollen, Mats and Ale from ERIBA. I think it was a great opportunity for me to work with MOAG-4. I really like the project. Unfortunately, we still could not come that far due to problem with samples. However, I wish you a great success with the continuation of this project or another project. I hope we are still keep in touch in the future.

I would like to acknowledge Christina Avanti, Wouter Hinrichs and Henderik Frijlink from Department of Pharmacy for our collaboration about NMR study of oxytocin. I was very happy that our work was successful. I hope we can still continue our collaboration in the future.

I would like to thank to Rik Megens for helping to make paramagnetic agent Ni(DO2A) and Fe(DO3A) in organic chemistry Lab. Thanks also for Prof. Gerald Roelfes for giving me the opportunity to collaborate with Rik and to use your lab facility to synthesize the paramagnetic agent.

For all my best Friends: Faizah and Pandji (Hanna the climber), Lia and Robby, Susan and Mas Bino (little cute Anika), Shilda (and Alex). We shared a lot of things.
together. Thanks for being there for me. I wish our friendship will never end. For Faizah: We came along together to Groningen since 2006. Thanks a lot for everything. The time that we have spent together in Groningen will always be unforgettable time. Thank you very much also for being my paranimf.

Bude Nunung: Bude...selama setahun terakhir bude selalu datang ke rumah, saya sangat senang sekali. Terimakasih banyak yaa Bude...Kusye kusye van Alisha.

For Mba Fitri, Mba Eha, Mba Risda, Ary, Mba Evi, Teh Yayu, Nilma, Nila, thanks a lot for everything. You’re really like sisters for me.

For all Indonesian PPI Osaka Nara Teh Euis, Teh Triati, Kemal, Danang, Gagus, Nurmalia, Astari and Nadhif, Andi, Mba Fitria, Udi, thanks for enjoyable times that we shared together.

Now it is a time to mention a huge Indonesian families in Groningen from 2006: Mba Nona and Mas Chalid, Teh Nisa and Mas Nandang, Mba Agnes and Mas Ismail, Pak Mimling and Mba Poppy, Mas Delik and Putri, Bintoro, Widi, Insanu, Pak Ali, Salma, Fani, Yovie, Fikri, Mas Oki, Almas, Mas Asrofi, Mba Lia and Mas Yayok (Keisha and Katya), Karina, Mba Erna dan Mas Hengky, Mas Teguh and Mas Kadek, Mba Poppy, Sarah Ka Guntur and Teh Intan (Nadia, Azka, Hanae), Mba Ida, Mba Arie, Mba Mutia, Mba Puri, Mba Mira, Mas Boy Fachrie, Mas Ilmi, Mas Ucup, Ria, Erna, Mas Teddy, Mba Ari widayanti, Mba Wiwin, Kenzie, Okta, Mba Astri, Teh Neng, Teh Uyung, Pak Intan dan Teh Enci, Mas Bayu and Mba Indres, Mas Aubiya and Neily (little Almira), Wak As, Mba Yenni, Mas Fadj and Mba Mitha Dwi, Mba Winny, Mas Helmi and Mas Ari (you are like my big brothers to me), Rahmad Mahendra, Fajar, Lia, Sita, Tara, and Finy.

For Kampung Planetenlaan family, thanks for everything, it is an unforgettable time for me to live close to all of you: Teh Puti and Ka Amel (my beloved Meisy): After two years staying together, you’re just like a family for me. Mba Nieke and Mas Donny (Adzkiyah), Desti and Iging (Daanish), Pak Asmor and Bu Asmor (Adi, Iva and Riffat), Mba Ratna and Mas Arvie (Ibrahim and Hassan), Mas Muizz and Teh Sri (Nabil), Mba Yunni and Mas Harry (Little Azza): It was a lot of happy time when we lived together, I always remember you.

For the great Kimia ITB family: Rachma, Eryth and Iqbal, Nizar, Wahono and Dini (Aletta), Amalina and Adzis (Dinara), Mbeb, Riany, Tomi, Radi Ali, Liany, Felix, Florence, Ulf, Navessa, Fenn, Astri, Irfan and Liza, Daniel, Dani and Meta, Ocha, Reza, and for all students from program sandwich Kimia ITB-Zernike Institute for advanced material, RUG

For my family in Bandung: Mama, Papa, Enin: Ma, Pa…makasih banyak yaa atas dukungan dan perhatiannya selama ini, terutama dalam mengurus Alisha di bulan-bulan pertamanya, Inul and Isal: Semangat yaa buat my little brothers.

For my family in Jakarta: Mama ciputat, Uni Era and Dadek, Uda Efän and Teteh Nesya, Uda Al and Mba Eli, Tante Kia and Om Prayitno, Ibu Matraman, Pak Tuo Arsil….Terimakasih banyak untuk semuanya...terutama ketika menjaga dan membantu Mama dan Papa Alia yang sakit parah pada tahun 2008. Semoga Allah membalas dengan kebaikan yang berlipat ganda.

Finally, my deepest gratitude to my better half and beloved Husband: Satria Zulkarnaen Bisri. Thanks for your love, support, care, help and patience to me. Despite we separated for thousand miles for 2.5 years and for half year we still had some distances to travel between Osaka and Tokyo, but you are always there for me and support me wherever I was. I am very lucky to have you. For my beloved daughter, Alisha Rahmania Bisri: you are my perfect happiness. You accompanied me doing research when you were still in my belly. You are an NMR baby. I hope you will understand your parents’ struggle and always become a leaner in your life. Staying together with both of you, it is really an unlimited happiness for me. I love you so much.

In the end, I would like to say a proverb: There is no unbroken ivory. I realized that this dissertation is still far from perfect. The shortcoming was due to my limitation as human being. It is impossible also to remember all who helped me to reach this point in my life. I apologize to anyone that I have unintentionally overlooked. Thanks to you all.

Nur Alia Oktaviani
Groningen, March 2014