Prof. Dr. Julius Lukes, PhD. Department of Molecular Biology Faculty of Science University of South Bohemia Ceske Budejovice

Glasgow, 10th May 2011

Dear Professor Lukes,

It is a pleasure to provide an evaluation of Jan Perner's performance during his Masters project in my laboratory at the University of Glasgow from September 2009 to June 2010. I also read his Diploma thesis with great joy and I strongly recommend Jan for his oral examination. Please find my recommendation below.

Jan Perner joined my group at the University of Glasgow in September 2009. I decided that he should work on a research project involving the characterisation of a *Plasmodium falciparum* (human malaria parasite) *glutamate dehydrogenase a* knockout mutant that was previously generated by my postdoctoral research assistant Dr Janet Storm. Dr Storm supervised his work on a day-to-day basis, while I had weekly meetings with Jan throughout his stay. Over the course of the project Jan learned very quickly and contributed significantly to the characterisation of the phenotype of the mutant parasites. This work is now under consideration for publication in "Malaria Journal" and he is co-author of this paper emphasising his contribution to the work.

In particular Jan learned how to culture *Plasmodium falciparum* parasites, which is not a trivial technique. He isolated DNA, protein, RNA and metabolites from the cultured parasites and analysed all of these components using a variety of methods. From the beginning it was clear that Jan had a very good background knowledge of general biology and biochemistry and that his previous education had employed him with excellent experience of working in the laboratory. This meant that he was able to drive the project forward significantly within a very short time. During the course of the project he realised how important exact record keeping was and he learned how to organise his work and to analyse his results and data in a scientific way.

Jan has a very inquisitive and critical mind, which was a very important component of the way the project progressed and during our discussions he showed excellent ability to critically analyse his data and put his work into context with the known literature. He clearly had the ambition to know exactly why he was doing what and

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he was keen to understand exactly the basis of the experiments he was undertaking. He did a great deal of background reading, which helped him to realise where his work was adding new knowledge to the already existing understanding of the role of the GDHa protein he was analysing. He learned very quickly and employed the new techniques efficiently and to the highest standard.

In particular Jan is a highly intelligent student; he was extremely enthusiastic and showed an outstanding diligence and creativity, which I often do not even see in final year PhD students. During the last 4 to 5 months of his stay he has developed a fantastic ability to perform high quality research and I believe his training in my lab has certainly helped him to realise that working in a scientific environment means to generate reproducible results. He has shown a great persistence to learn to standardise his work, which is one of the pre-requisites to become a successful scientist.

Jan got on very well with the members of my group and he learned that working as a team and that interaction with all members of the group was beneficial and that working and discussing his results was a useful and beneficial part of his education. His wish to learn and understand every technique and method he employed was impressive and he often asked difficult and exciting questions, which we discussed extensively. His input in the interpretation of his data as well as the design of experiments was outstanding given that he is an undergraduate student and over time he became a very important member of my group. He also engaged in discussions with other lab members about their work and his ideas and thoughts were always welcomed.

Jan took part in our group meetings where he presented his work on a regular basis and he also presented scientific papers in our journal club. His presentations were of high quality and again reflected his ability to assimilate new knowledge and understand it without difficulty as well as summarise in a suitable and scientific way.

It was a great pleasure to have Jan Perner in my lab and I will miss the discussions with him greatly. He was a great asset to the group and I am sure that he has greatly benefited from this experience. I wish him all the best for his future and am sure that this placement has helped him on his way to develop into a research scientist.

Lastly, he generated an excellent thesis that I read with great pleasure. Compared to other Masters students I have supervised in recent years, Jan's achievements, attitude and scientific understanding are outstanding and I highly recommend him for the Diploma degree at your University. He is easily within the top 5 % of all Masters Students I supervised over the past 20 year. I am sure that he will do exceptionally well and wish him all the best for his future career.

Yours sincerely,

Sylla Quint

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