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Leiden

The Netherlands

To IMAGE or to IMAGINE: visualization of parasite migration as a means to support (malaria) parasite vaccine development

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Citation

Korne, C. M. de. (2023, November 2). *To IMAGE or to IMAGINE: visualization of parasite migration as a means to support (malaria) parasite vaccine development*. Retrieved from <https://hdl.handle.net/1887/3655877>

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Stellingen behorende bij het proefschrift getiteld:

To IMAGE or to IMAGINE

Visualization of parasite migration as a means to support (malaria) parasite vaccine development

1. Imaging has critically contributed to all aspects of basic science, translational studies and clinical medicine; a world without imaging is not imaginable.
Adapted from R. Weisleder and M. Nahrendorf. PNAS (2015)
2. Sporozoite migration in the human host plays a major role in the performance of the current malaria vaccine candidates.
This thesis
3. Quantitative microscopical imaging of parasite motility appeared at the interface of informatics and biomedical imaging and needs an interdisciplinary environment for further development.
This thesis
4. The current challenge is to follow individual parasites on all potential paths through the host system, rather than only analyze them in specific, seemingly isolated tissues.
Adapted from T. Krüger et al. Trends in Parasitology (2018)
5. Novel microvolume-based administration technologies that mimic sporozoite delivery by mosquito are a means to optimize the efficacy of intradermally delivered whole sporozoite vaccines.
This thesis
6. Combining optical modalities can overcome the limitations of isolated imaging approaches and can provide unique information which is only achievable through correlated imaging.
Adapted from A. Walter et al. Frontiers in Physics (2020)
7. A diverse range of experimental models, including human tissue models, are indispensable to approach the clinical reality as good as possible.
This thesis
8. The power of the striking and beautiful imagery that is generated in imaging-based parasitic research is a reminder to always look on the bright side of life.
Adapted from L. Beattie et al. Cellular Microbiology (2011)
9. Being outside the box as a child has been my most valuable preparation for a PhD in the lab; unorganized outdoor play should be encouraged to stop the trend of 'kid-containerization'.
Adapted from Richard Louv in 'Last Child in the Woods' (2005)
10. The chief characteristic of scientists should be a sense of wonder that grows exponentially; the greater the knowledge, the deeper the mystery and the more we seek knowledge to create new mystery.
Adapted from E.O. Wilson in 'Biophilia' (1986)
11. The mountains we climb during a PhD are the mountains of our mind.
Adapted from the documentary 'Mountain' (2017)
12. Friendship is unnecessary, like philosophy, like art. It has no survival value; rather it is one of those things which give value to survival.
Adapted from C.S. Lewis in 'The Four Loves' (1960)