



Universiteit
Leiden
The Netherlands

Computer-aided techniques for assessment of MRI-detected inflammation for early identification of inflammatory arthritis

Aizenberg, E.

Citation

Aizenberg, E. (2019, March 14). *Computer-aided techniques for assessment of MRI-detected inflammation for early identification of inflammatory arthritis*. Retrieved from <https://hdl.handle.net/1887/68704>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/68704>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The following handle holds various files of this Leiden University dissertation:

<http://hdl.handle.net/1887/68704>

Author: Aizenberg, E.

Title: Computer-aided techniques for assessment of MRI-detected inflammation for early identification of inflammatory arthritis

Issue Date: 2019-03-14

Stellingen behorende bij het proefschrift getiteld
“Computer-aided techniques for assessment of MRI-detected inflammation
for early identification of inflammatory arthritis”

1. Fusion of MR scans of the spine from two time points into a single color-encoded image allows for direct visualization and measurement of inflammatory changes over time. – *This thesis*
2. Automatic quantification of bone marrow edema and tenosynovitis is feasible and largely consistent with visual scoring. – *This thesis*
3. Synovitis and blood vessels present in the vicinity of tendons can contribute to an offset in quantitative measurement of tenosynovitis, leading to its overestimation. – *This thesis*
4. The diagnostic capacity of commonly evaluated MRI-detected inflammatory features with regard to progression from clinically suspect arthralgia to clinical arthritis is predominantly captured by a subset of tenosynovitis and synovitis features. – *This thesis*
5. MRI-detected inflammation should be seen as a potential complement to other biomarkers, not as a substitute.
6. Quantitative measurements should not be viewed as a replication of the RAMRIS visual scoring system.
7. Robust segmentation is key to unlocking the potential of quantitative measurement techniques and their use in clinical research and practice.
8. Medical image processing researchers should be allowed to maximize their efforts on image analysis rather than correction of acquisition artifacts.
9. The notion of an eight-hour working day for researchers is obsolete and inconsistent with the nature of the creative process. Research is an art, and, as such, its output is not linearly dependent on the time input.
10. Among the vastness of space and time, our short journeys are so infinitely small. Yet, it is up to us if we leave in the end with more love than we found at the start.
11. “Can a man still be brave if he's afraid?” “That is the only time a man can be brave” – *George R. R. Martin, A Game of Thrones (1996)*
[There is no shame in being afraid and being in doubt. In fact, it is an inseparable part of all significant undertakings in life.]