

Multimodal analysis of neuroimages in Alzheimer's disease

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1) Efforts to understand and track the early changes associated with AD will greatly increase our understanding of disease-causing mechanisms and lead to the identification of novel targets for pharmaceutical intervention which could delay disease progression. (from this thesis)

2) Single imaging techniques enable to study single cerebral alterations; in order to investigate the overall cerebral damage, several techniques should be combined. There is considerable promise that early and specific diagnosis of AD will be rendered possible through the combination of a number of different biomarkers for AD. (from this thesis)

3) Clinicians dealing with AD patients must get more and more familiar with available imaging techniques and equip themselves to use quantitative tools. (from this thesis)

4) Structural damage, functional alterations, and protein build-up, characterising Alzheimer's disease, are interrelated but not concurrent nor co-localised phenomena. (from this thesis)

5) A better understanding of compensatory mechanisms could help to go more deep into the comprehension of the AD underlying pathology, hopefully opening the way to a more accurate disease marker than atrophy or perfusion and metabolism alone or suggesting novel therapeutic strategies to improve the resilience of the brain to neurodegenerative damage. (from this thesis)

6) One of the major lesson we are taught by multimodal imaging, which could indeed help us to be more tolerant people, is that several points of view need to be integrated to get the complete picture.

7) The awareness that from a close look nobody looks normal would likely limit stigma and discrimination, too often adding to the suffering associated with mental disorders.

8) Clinical research should indeed aim at making a breakthrough in medicine. As clinicians, clinical researchers should not forget the person behind the disease.

9) If researchers would adopt the "close the border" policy towards foreign ideas, most of the scientific progress would not be possible.

10) Nothing in this world is to be feared... only understood. (Marie Curie)

11) I love mathematics not only because it is applicable to technology but also because it is beautiful. (Rosza Peter)

12) I have spent my life learning incredible amounts of disparate, disconnected, obscure, useless pieces of knowledge, and they have turned out to be, almost all of them, extremely useful. (Confucius)