Cortical microinfarcts and atrophy

As a master student I joined the VCI group last year for a 6 month period to conduct research as part of my Medicine degree. I had the opportunity to go to Singapore, as part of a collaboration with the National University of Singapore (NUS), for a 4 month internship. The main focus of my project is on cortical microinfarcts (CMI) and their role in cognitive decline in the aging human brain. Recently, CMIs were visualized for the first time at the UMCU using high resolution 7 Tesla MRI (Van Veluw et al. 2013 JCBFM). In that original work it was suggested that CMI could also be identified at conventional 3T MRI. In a subsequent paper it was shown that, in a large Asian memory-clinic population from NUS, patients with CMI on 3T MRI have a distinct (cognitive) profile compared to patients without (Van Veluw et al. 2015 Alzheimer’s Dement). As part of my internship I will rate CMIs in a large population-based sample of over 800 subjects from the mixed Asian ethnicity community of Singapore. Specifically I will examine the prevalence of CMIs and their relation with both general and local cortical atrophy. During my time at the VCI group at UMCU I work under the supervision of Prof. G.J. Biessels, S.J. van Veluw and M.K. Ikram. In Singapore I was supervised by Prof. C. Chen and S. Hilal.