

# Retinal vascular features as a biomarker for psychiatric disorders

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Propositions accompanying the thesis:

## RETINAL VASCULAR FEATURES AS A BIOMARKER FOR PSYCHIATRIC DISORDERS

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1. Wider retinal venules and narrower retinal arterioles are associated with cognitive impairments in Schizophrenia and Bipolar disorder (this thesis).
2. Retinal vascular trajectory is a novel feature of retinal fundus images that can differentiate between healthy volunteers and patients with Schizophrenia and Bipolar disorder (this thesis).
3. There is a significant difference between retinal vascular calibre, and retinal arteriolar tortuosity features not only between patients and healthy volunteers, but also among patients with schizophrenia and bipolar disorder (this thesis).
4. Retinal vascular fractal dimension measure is found to be higher in Schizophrenia and Bipolar disorder when compared to healthy volunteers (this thesis).
5. Teaching individuals at an early age how to deal with stress may have major implications for the prevention of psychopathology.
6. Biomarkers that are correlated to Schizophrenia and Bipolar disorder at the group level are currently unusable for individual diagnostics but definitely give clues for further research.
7. Application of imaging in clinical diagnosis of Schizophrenia and Bipolar disorder is hampered by the focus on brain imaging alone.
8. Retinal fundus imaging has potential application for preliminary screening technique as it is non-invasive and inexpensive for identifying the presence of psychoses (valorisation).
9. A study abroad is a way to get to know yourself and not just another country.
10. Intelligence and capability are not enough. There must be a joy of doing something beautiful. (Dr. Govindappa Venkatappaswamy)