Using Molecular Biomarkers to Identify ANCA-Associated Vasculitis Patients at Risk of Relapse

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The primary challenge in the treatment of ANCA-associated vasculitis is the balancing of risk of relapse with the cumulative toxicities of immunosuppressive treatments. The goal of this research is to perform an exploratory analysis of the RKD Registry, a database containing patient biomarkers since its creation in 2012, and utilising these molecular biomarkers in this database to tackle this issue. Through the application of machine learning techniques it is hoped that the statistical information contained in these biomarkers can classify patients at risk of relapse from those who are off all treatment for a time period greater than one year. If successful, this research will be able to distinguish what biomarker or combination of biomarker values signal a safe termination of treatment.