CYTOX

Defining Genetic Risk for Dementia

Cytox at AAIC 2019

Without new drug therapies, the economic and healthcare cost burden of dementia - including Alzheimer's disease - is estimated to exceed $1tn per year in the next decade [World Alzheimer's Report 2015 - www.alz.co.uk/research/WorldAlzheimerReport2015.pdf].

Cytox's product, *geno*SCORE™, enables developers of Alzheimer's drugs to identify patients most at risk of developing the disease in the near term, and thus permit use of relevant patient genotypes as eligibility and selection criteria in clinical trial designs. Such patient stratification increases the numbers of individuals who will demonstrably develop symptoms entering clinical studies, thus leading to a greater chance of measuring a therapeutic effect.

*geno*SCORE™ uses Polygenic Risk Scoring through the Cytox *varia*TECT™ profiling array, which detects the presence of multiple SNPs associated with Alzheimer's, in combination with SNP*fit*R™, an algorithmic software platform that interprets the *varia*TECT™ output as a risk score.

Cytox's product, *geno*TOR™, enables developers of dementia drugs to characterise specific subsets of Alzheimer's disease and dementia, based on specific genetic risk variants in mTOR-regulated signalling pathways, and identify patients suitable for their clinical trials.

*geno*SCORE™ and *geno*TOR™ are available on a fee for service basis, through a licensing agreement, or as part of a strategic partnership to develop companion diagnostics for future drugs.

Posters at AAIC

Two posters at the conference present data on the use of our technologies, the first from our partners at Cardiff University (Sunday, 14 July at 1.00pm poster #P1-532), the second from Cytox (Wednesday 17 July at 9.30am poster #P4-202)

Sunday Poster

Polygenic Risk Score Distributions of Alzheimer's Disease Within Different Populations

The utility of Polygenic Risk Score (PRS) is gaining increasing attention for estimating individual genetic risk profile and disease risk prediction in Alzheimer's Disease (AD). The accuracy of PRS depends on the discovery cohort, with the majority of studies mainly conducted in European-ancestry populations. The latter along with the variability of linkage disequilibrium (LD), even when the causal variants are the same, results in the poor generalisability of PRS analysis among different ancestries. In the current study, we aimed to assess the differences in AD PRS estimates due to the differences in LD and allele frequencies in European, East-Asia and Africa populations.

Wednesday Poster

A Streamlined Integrated Process to Predict Genetic Risk of Alzheimer's Disease

The development of diagnostic tools to identify disease risk is critical to enable selection of suitable individuals for inclusion into clinical trials and cohort studies. This poster shows how Cytox is able to predict an individual's risk of developing Alzheimer's Disease through its proprietary platform, as part of a streamlined integrated process, taking DNA from either a blood or saliva sample, through genotyping and PRS calculations to produce an estimation of risk of Alzheimer's Disease.

Visit our Booth

To learn how *geno*SCORE™ and *geno*TOR™ could support your Alzheimer's drug development programmes please visit our booth in the exhibition hall (#202). If you would like to arrange an appointment please email: AAIC19@cytoxgroup.com. Tony Hill – Chief Commerical Officer, Alex Gibson – Business Development Officer, and Matt Moore, US Sales Manager are attending.