3R has developed extensive intellectual property in the use of redox-reactive autoantibodies (R-RAA), particularly as biomarkers for Alzheimer’s disease (AD). R-RAA are a class of immune system components discovered in 2001 by John A. McIntyre PhD. and since confirmed by multiple studies in peer-reviewed publications. While R-RAA are a platform technology that may play important roles in diagnosing and/or treating a wide variety of diseases, 3R is leading with a set of R-RAA-based AD serum biomarkers. To support its development and regulatory filing efforts, 3R is actively seeking collaborators.

3R’s serum-based AD biomarkers

3R’s technology unmasks and re-masks autoimmune specificity of Immunoglobulins (Ig), as well as detects whether a person’s immune system has spontaneously unmasked Ig in vivo. 3R has demonstrated its biomarkers’ ability to differentiate between persons with AD, mild cognitive impairment (MCI), and normal cognitive controls (Autoimmunity, 2015:1-8). 3R believes its serum biomarkers can be a substitute for current cerebrospinal fluid AD biomarkers, and potentially can identify AD years before symptoms occur — when therapies are expected to be most effective.

Utility across multiple market segments

As an early “snapshot” diagnostic, 3R believes its biomarkers may be useful in three market applications:

1. Research/Drug Development: Effectively stratify patient populations for clinical trial enrichment
2. Screening: Establish baseline levels in high-risk persons, then track progress against baseline to detect AD at its earliest development
3. Therapy Selection: Select therapies/stratify patient populations

As a dynamic disease-responsive assay, 3R’s assay may be used to:

• Act as substitute endpoints in clinical trials
• Monitor Rx therapies and aid in establishing dosage

Using accepted factors associated with increased risk of developing AD, the patient population suitable for a monitoring program is expected to range from 5MM to 30MM (U.S. only), resulting in a $1B–$3B+ addressable market. The potential for discovering a novel AD therapeutic pathway from better understanding R-RAA behavior is an additional long-term “upside.”

The path forward

3R, in collaboration with Arkley BioTek, is continuing development with the support of a $1.15MM fast-track SBIR grant from the NIH awarded in July 2015. To accelerate progress, the company is seeking a relationship with entities with complementary technologies or a business interest in serum AD biomarkers.

Join our mission and be part of a true breakthrough in neurodiagnostic care.

This document is not a securities offering