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AETIONOMY – CONSORTIUM MONTHLY UPDATE

Message from the Coordinator

Building the New Taxonomy

The aim of AETIONOMY is to propose a new taxonomical classification for Alzheimer's and Parkinson's disease at the end of our 5 year project. This taxonomy will be based around the different molecular mechanisms causing the disease symptoms and not just on the symptoms.
Different individuals will have different molecular mechanisms causing their symptoms and we can then cluster individuals with the same disease mechanisms together, to create the new taxonomy.

We have spent the first 3 years of the project identifying the potential disease mechanisms from literature mining, data analysis and model building. We have identified 6 that we want to test in our clinical trial samples but over 180 have been identified in total. Not all of these potential disease mechanisms will be real, and some may be overlapping with each other. The focus for the project for the next 2 years of the project as we discussed at the general assembly is on the next phase of the project. We now need to take the potential mechanisms we have identified and cross validate them with each other as well as use available datasets from the literature and partners as well as samples. Who does this validation work will very much depend upon the mechanism and the partner skill sets and capabilities but it is very much hoped that all of the partners are still heavily involved as was the original plan. This means that right now we have to take the time to review the mechanisms and come up with a scientific based validation plan. This will be a core piece of work being done over the next few months, leading up to the interim review.

Once we have validated the mechanisms we can look at clustering them into discrete sub-groups and a new taxonomical structure. We hope everyone will get engaged in this new phase of the project and support the scientific strategy as it develops.

General Information

Recruitment Update

Site	PD	AD	Controls	Total
ICM	57	0	20	77
KI	41	0	12	53
UKB	26	0	9	35
Total:	**124**	**0**	**41**	**165**
Neurorad	0	7	34	**53**
Oxford	0	0	0	Not started
EPAD	x	x	31	31

"The APOE4 genotype modulates CSF YKL-40 levels and their structural brain correlates in the continuum of Alzheimer's disease, but not those of sTREM2", JL Molinuevo, has been accepted for publication in Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring

Reminder that all publications need to be submitted to the Project Office before submission. Same for Congress abstracts, etc.

Upcoming Meetings

- Interim Review rehearsal at UL on 1/2 March 2017
- Interim Review at IMI, Brussels (B), on 21 March 2017, rehearsal on 20 March at UCB HQ.
- AD/PD Conference 2017, Vienna (A), 29 March - 2 April 2017
- General Assembly 2017 on 30 Nov & 1 Dec 1.

Deliverables due to IMI in 2016 (late)

- D3.3.2   Webinar and report to review the pathophysiology graphs and potential hypotheses to be tested (M30)
- D3.7.2 Report of the generation of specific pathophysiological mechanisms that induce class separation for NDD sub-groups (M32)
- D5.1.3.6 To confirm choice of biomarkers for final protocol, Minutes will be available from the meetings and webinars. (M33)
- D3.3.3. Webinar and report to review the pathophysiology graphs and potential hypotheses to be tested (M33)
- D1.3.1.1 Revised Communication and Dissemination Strategy Document (M34)

WP1 – Governance & Coordination

- The updated Description of Work, vs 4.1 of 21 Nov 2016 has been verbally approved by IMI. We can therefore use this to prepare our Annual Report. All other versions are now obsolete.

- The 3rd General Assembly Meeting was held on the 1st & 2nd of Dec 2016 in Paris at Sanofi. Thanks to Philippe and Luc for hosting us all & thanks to our ESAB for coming & for all the feedback. Next year will be 30 Nov & 1 Dec 2017 in Basel at Novartis

- The 2nd Interim Review is scheduled for 21 March 2017 at IMI in Brussels. There will be a rehearsal at UCB HQ on the 20 March from 13h to 19h. More details to follow.

WP2 – Knowledge & Data Management

- WP2 continues working on the analytical tools (D2.4.1.1 and querying interface) and preparation for the GA.

- The consent forms to access the EFPIA datasets have been send out for signatures from relevant members.
  The datasets from ICM (NGC, Genepark, DIG-PD) have been received by WP2 recently, and we will now begin the process to include it to the AETIONOMY Knowledge base.

WP3 – Knowledge Integration & Mining

- 1) Fraunhofer released the NeuroMMSig resource internally;

- 2) UCL, UCB, SARD, EMC and UL carried out an initial validation of the stratifying mechanistic PD hypothesis;

- 3) UCL released the clinical neurophysiology knowledgebase resource internally;

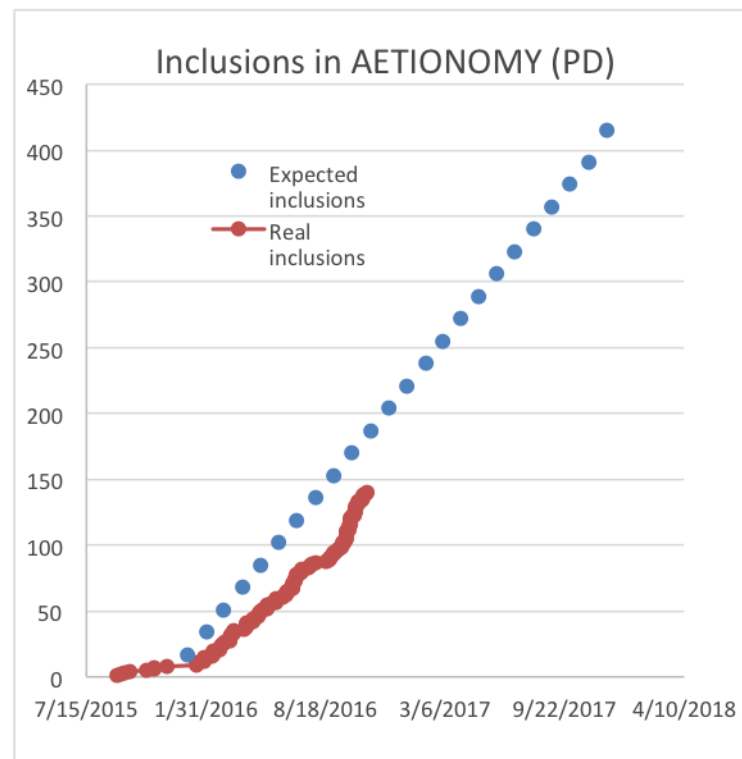- 4) EMC completed the spatial model generation for the brain spatial atlas.

WP4 – Ethical & Legal Governance

- LUH and Alzheimer Europe are jointly preparing the second part of the legal and ethical guidelines on patient stratification in non-curable diseases, which will focus on the AD prospective study; this will be submitted to IMI in the form of a deliverable at the end of 2016.

- LUH is also commencing an ongoing analysis – which will be revised and updated as the countdown to implementation (in May 2018) progresses – of the impact of the new General Data Protection Regulation 2016/679 upon use of health data for clinical research, with particular reference to arrangements in AETIONOMY. This research will be published as a project deliverable at the end of 2017.

- In addition WP4 is continuing, in collaboration with other WPs, to assist in AETIONOMY data-seeking initiatives, including the progression of supplementary EFPIA data-sharing arrangements, the application to EPAD for data and sample access, and the review of an MoU on research cooperation with EMIF (Oxford).

WP5 – Clinical Validation

- ICM retrospective datasets from 3 clinical studies have been sent to be uploaded in AKB.

- Draft of data and samples sharing agreement between EPAD and AETIONOMY consortia have been internally reviewed and will be now shared with EPAD for discussion.

- Recruitment in EPAD protocol at BBRC is progressing well.

Clinical Study Recruitment

Inclusions in AETIONOMY (PD)

Once again, an eventful year is coming to a close.
We wish you all a peaceful and contemplative holiday season and
a successful and wonderful New Year!