



EUR-USH Consortium

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Further information

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Permanently updated:
<http://eur-ush.eu/>



PI's second kick-off meeting
Mainz, 26.09.2014



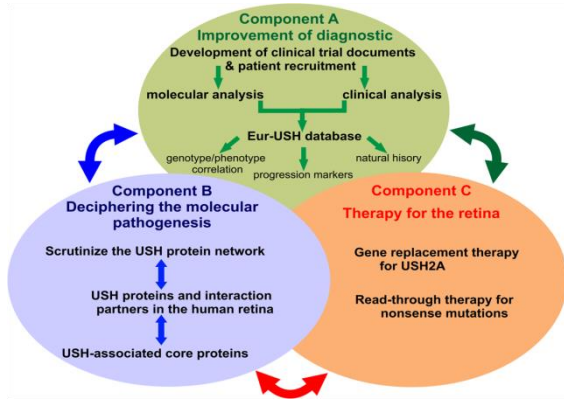
European young investigators
network for Usher syndrome

EUR-USH

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2013 - 2016

European young investigators network for Usher syndrome



- Usher syndrome (USH) is a rare (~3/100.000) genetic disease with autosomal recessive pattern, resulting **major handicap** for patients, since it affects two major senses, vision and hearing.
- Currently, there is **no treatment available** for Usher syndrome. The auditory deficit in USH can be compensated by the use of hearing aids and cochlear implantation, but the retinal problems remains unsolved and leads to a loss of peripheral vision.
- First, USH is a **clinically and genetically heterogeneous** disorder, making diagnosis and treatment challenging. Second, to date existing **databases** and rare material collection **are local, small** and not accessible or standardized. Third, **natural history** of USH ophthalmic component is **not fully understood**.

EUR-USH : the three components are each interconnected to make up the full project

- The combination of state-of-the-art clinical examinations, molecular analyses (e.g. NGS) and developed database will improve diagnosis.

- Basic research (proteomics, imaging) will enlighten the mechanisms of the molecular pathogenesis.

Component A

European wide genotype/ phenotype related database development (P4).
Up to ~500 USH patient data will be uploaded

Clinical and genetic examination of Usher Syndrome patients' cohort in Europe

Usher syndrome diagnostic platform with significant markers elaboration for clinical therapy trials (P3, P4, P5).

<http://clinicaltrials.gov/show/NCT01954953>

EURUSH study currently recruiting patients (P3, P4).

Component B

Scrutinize the USH protein interactome and assess the role of USH proteins in retina development and function (P6).

Protein complexes isolated from HEK293T cells

Expression, subcellular distribution and co-localization of USH proteins and novel USH network patterns in human retina (P1).

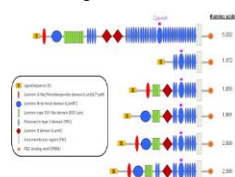
Retinal expression of Strep-FLAG-tagged sans_b and cip98_b under the control of an enhanced zebrafish opsin promoter.

If you/your family members are affected by Usher syndrome and/or willing to be included in EURUSH clinical trial, please contact: evicmet@aibili.pt

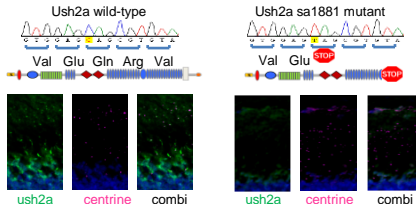
If you are interested in European wide database and/or looking for cooperation partners: ieva.sliesoraityte@inserm.fr

If you are searching for well described USH patient cohort or potential partners for therapy trials in future: nagelwol@uni-mainz.de
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USH2A minigenes



Zebrafish ush2a sa1881 mutants



Component C

Gene replacement therapy for USH2A related retina degeneration (P6).

Read-through therapy for the retinal phenotype (P1).

- Gene-based therapies will be evaluated: gene augmentation and translational read-through, to treat the progressive retinal degeneration