Endogenous granulin peptides as novel CSF biomarkers of progranulin-associated frontotemporal dementia

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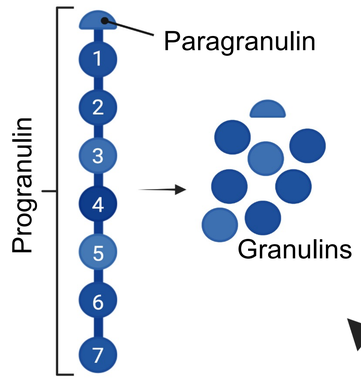
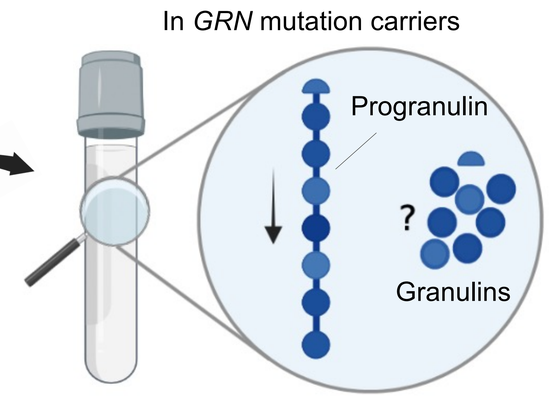
Background



- Progranulin mutations (*GRN*) are a key cause of frontotemporal dementia (FTD)
- They lead to reduced biofluid levels of the progranulin protein
- This protein is broken down into 7 granulin and 1 paragranulin peptides

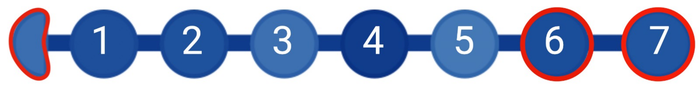


What about the granulins in CSF?

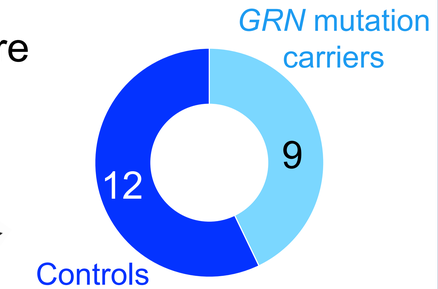
Methods

Scan for more info on orbitrap LC-MS

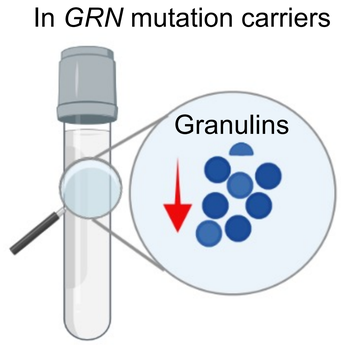
- A targeted panel of 3 peptides (representing granulin 6, 7 and paragranulin) was developed using quadrupole orbitrap LC-MS



- These peptides were then quantified in a pilot cohort of 21 individuals



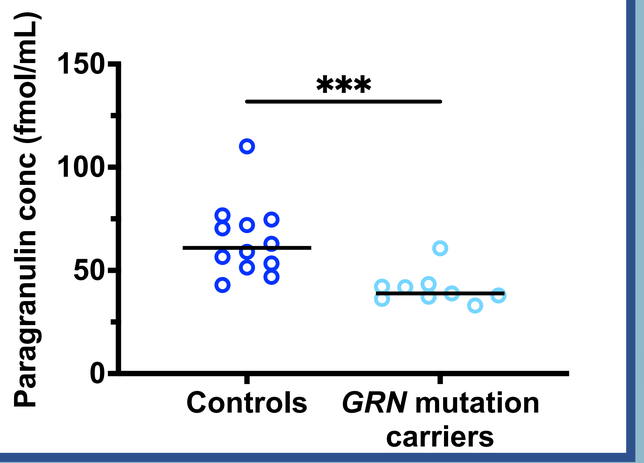
Conclusions

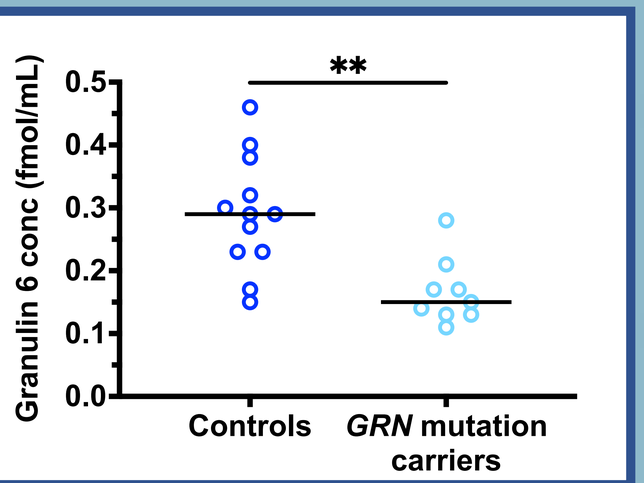


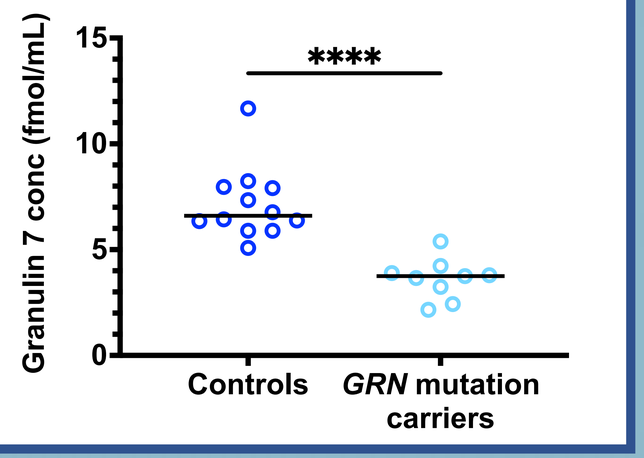
- These findings help explain the underlying biology of this condition
- These measures could also be implemented in ongoing clinical trials for *GRN* mutation carriers
- Next steps for this project will be to look in the wider GENFI (Genetic FTD initiative) cohort

Results

Reduced CSF concentration of granulin 6, 7 and paragranulin in *GRN* mutation carriers








Any questions?
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