



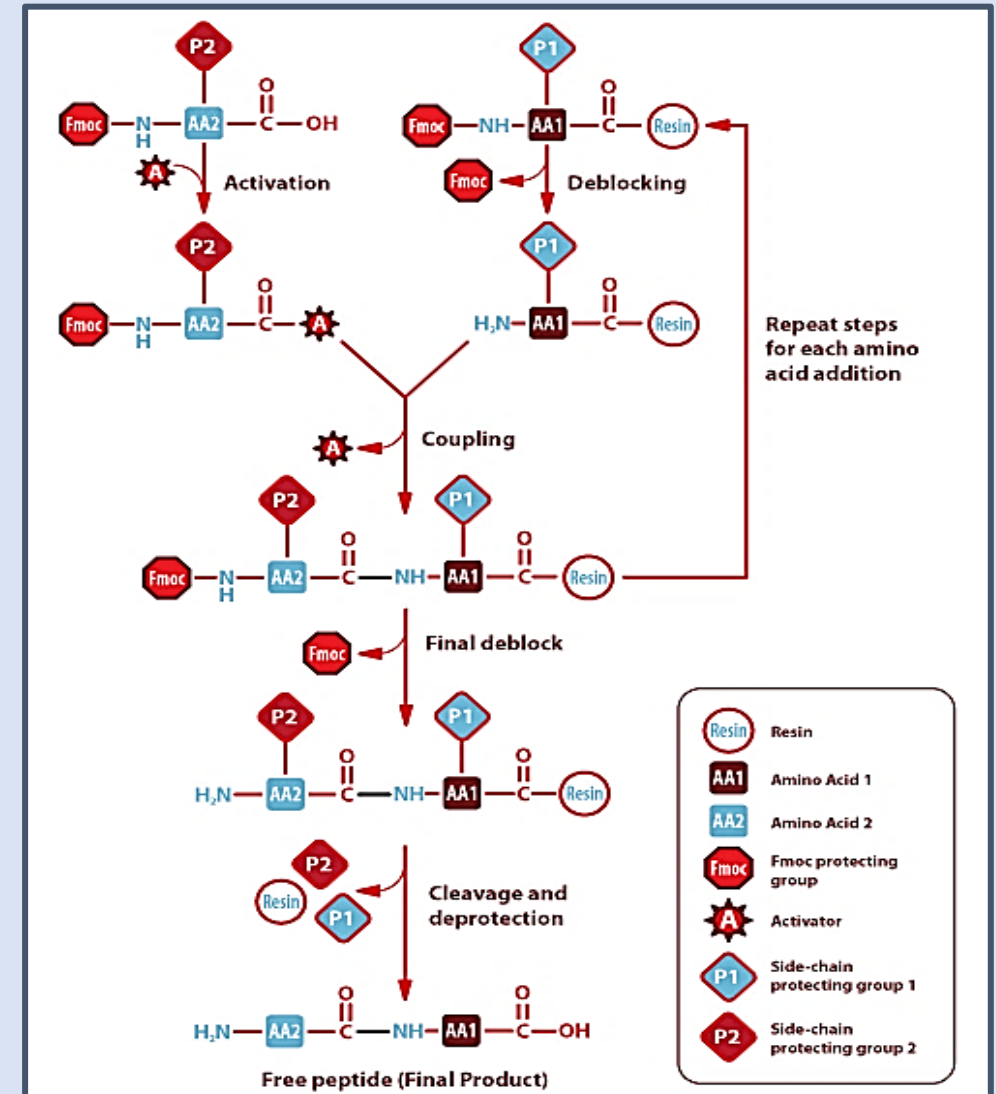
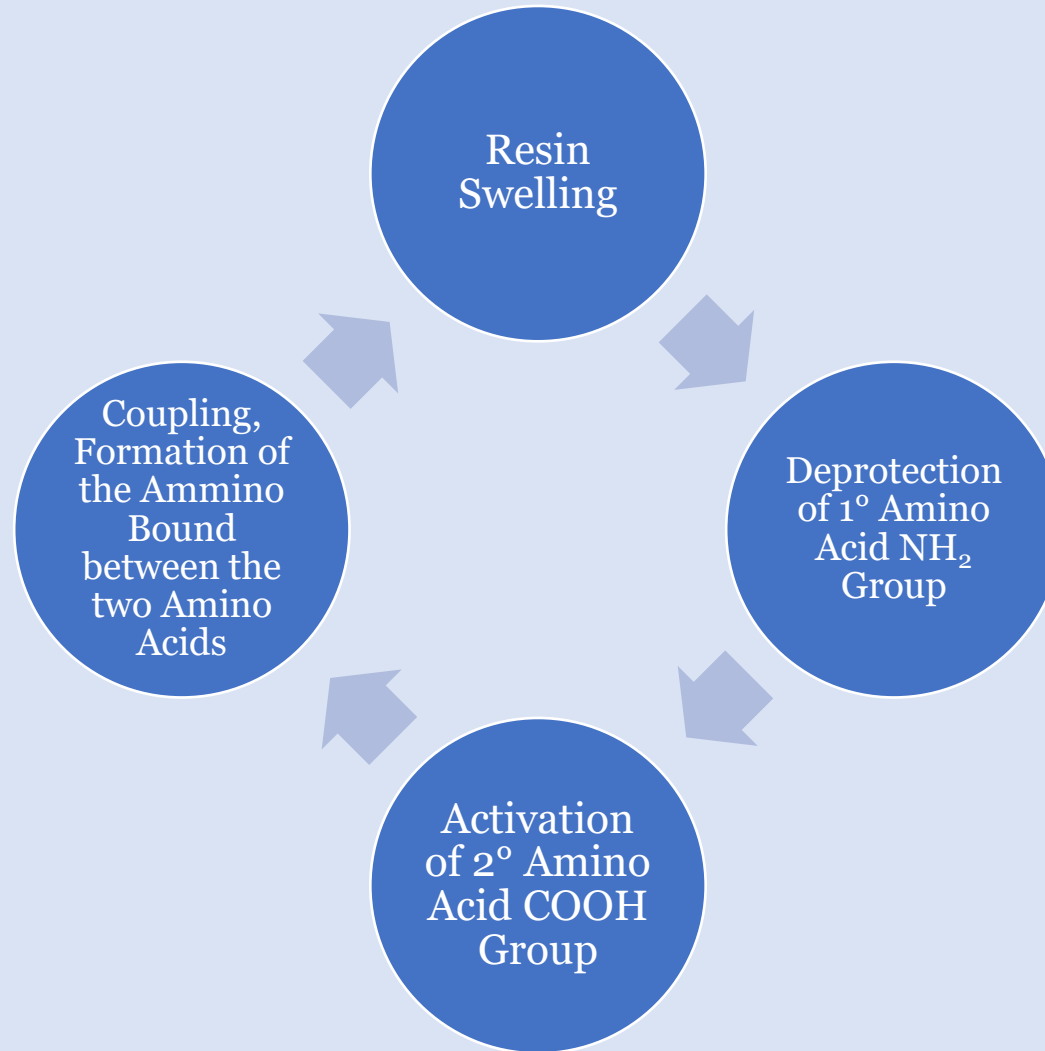
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BIOCHEMISTRY AND PROTEIN CHEMISTRY LABORATORY

Chemical Synthesis of Biological Active Peptides

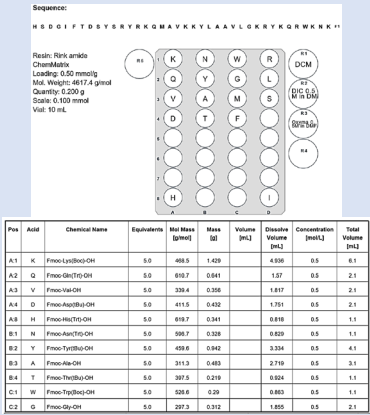
Karim Ahmed
21th July 2022

Synthesis of a solid phase peptide



Peptides Synthesis

Report and Weighing of amino acids



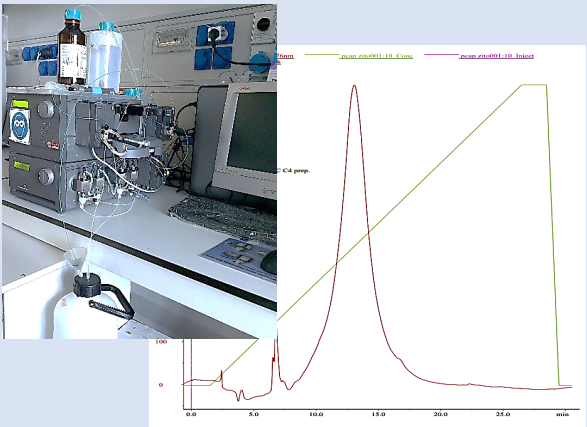
Biotage Alstra Synthesizer



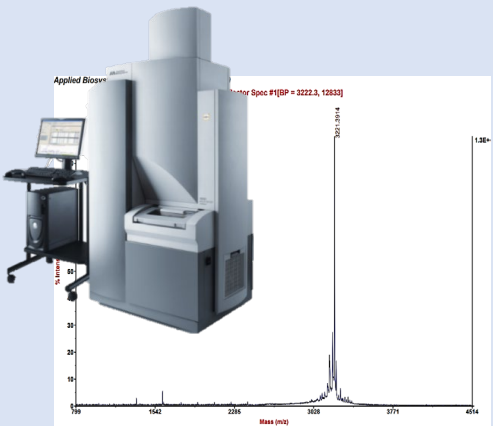
Centrifugation



Purification with HPLC



MALDI-TOF control



Freeze-drying



Synthesized Peptides Usage

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Research Article

Proliferation of Tau 304–380 Fragment Aggregates through Autocatalytic Secondary Nucleation

Diana C. Rodriguez Camargo, Eimantas Sileikis, Sean Chia, Emil Axell, Katja Bernfur, Rodrigo L. Cataldi, Samuel I. A. Cohen, Georg Meisl, Johnny Habchi, Tuomas P. J. Knowles, Michele Vendruscolo, and Sara Linse*

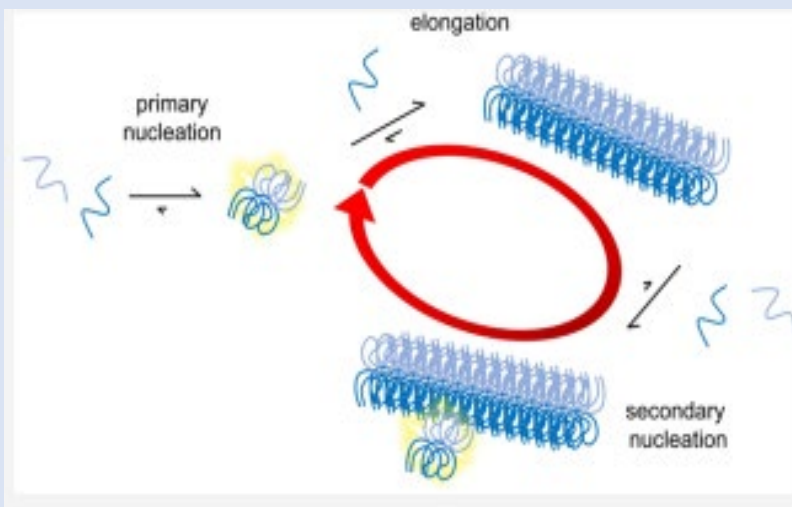
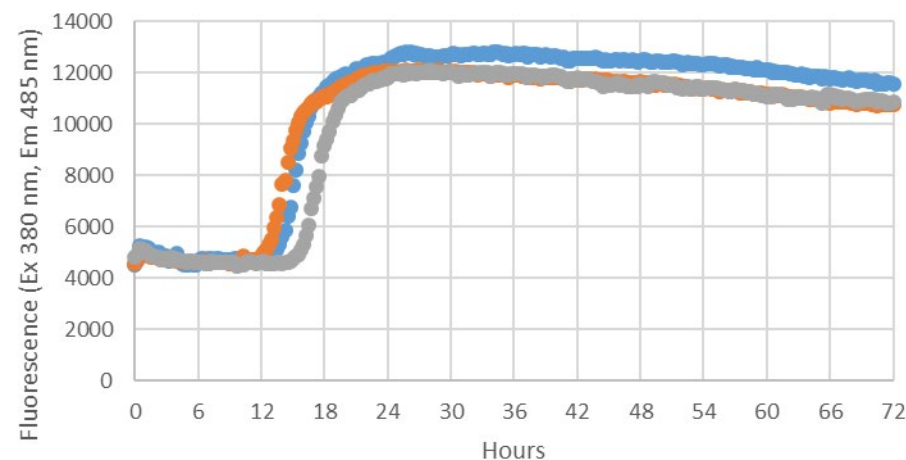
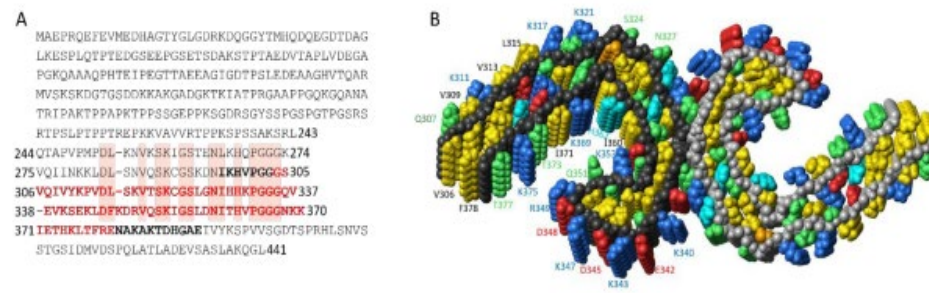


Figure 8. Aggregation model for the tau fragment. The model includes three classes of microscopic steps: primary nucleation (very slow), elongation by monomer addition, and secondary nucleation of monomers on the fibril surface and is compatible with all the data collected in the present work. The red circular arrow indicates the autocatalytic feedback loop consisting of secondary nucleation and elongation, and the faint yellow stars indicate nuclei.

Tau304-380 1 μ M



Aggregation kinetic of 1 μ M Tau 304-380 (77 aa) in 20 mM phosphate buffer with 2 μ M X34 dye, at 37°C



Storage of synthesized peptides

IMN

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PEPTIDES DATABASE

Type Peptide Sequence
Then Click Enter to Search

Number	Name	Sequence	Origin	Date	Quantity(mg)	Availability(mg)
1	Tau	LKAJSLAKSJADWFEFEFEFEGERGRHUJU	TAU	12/12/2020	30	
2	Htt	LAKQWZDZJ	HTT	20/11/2020	25	

Login

Peptides

Tau

Peptide Number

1

Peptide Sequence

LKAJSLAKSJADWFEFEFEFEGERGRHUJU

Peptide Origin

TAU

Synthesis Number

23

Synthesis Date

12/12/2020

Synthesis Description

re

Destination

M Salmona

Results

Effective

Availability(mg)

30

Quantity(mg)

30

Project Number

30

Project Name

Calipso

Project Description

ffd

Notes

mswdxkkssldksmdksn

HPLC test

MALDI test

Print Report

Record: 1 di 2

Nessun filtro

Cerca

Thank You



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Karim Ahmed

Thanks to Mario Salmona, Alfredo Cagnotto, Ada De Luigi, Giulia Yuri Moscatiello, Jennifer Fernandez