Affinity of zinc and copper ions for insulin monomers
Gavrilova, Julia; **Tõugu, Vello**; **Palumaa, Peep** Metallomics 2014 / p. 1296-1300 : ill https://doi.org/10.1039/c4mt00059e Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Amyloid beta 1-42 oligomerization in vitro and characterization with SDS-PAGE, MALDI and ESI MS
Friedemann, Merlin; **Tõugu, Vello**; **Kirsipuu, Tiina**; **Palumaa, Peep** FEBS journal 2013 / p. 140-141

Application of Differentiated SH-SY5Y Cells for Toxicological Studies of Alzheimer's Amyloid Beta Peptide = Diferentseeritud SH-SY5Y rakkude kasutamine Alzheimeri amüloid beeta peptiidi toksilisuse uurimiseks
Krištal, Jekaterina 2020 https://digikogu.taltech.ee/et/Item/8aef400a-e1ff-4803-a0da-fc2d97c8d451

Binding of zinc(II) and copper(II) to the full-length Alzheimer's amyloid-[beeta] peptide
Tõugu, Vello; **Karafin, Ann**; **Palumaa, Peep** Journal of neurochemistry 2008 / p. 1249-1259 : ill https://pubmed.ncbi.nlm.nih.gov/18289347/

1,1'-bis(anilino)-4-,4'-bis(naphtalene)-8,8'-disulfonate acts as an inhibitor of lipoprotein lipase and competes for binding with apolipoprotein CII
Lõokene, Aivar; Zhang, L.; Tõugu, Vello; Olivecrona, G. Journal of biological chemistry 2003 / p. 37183-37194 https://doi.org/10.1074/jbc.m303894200

Characterization of Uranyl (UO22+) ion binding to Amyloid Beta (Aβ) peptides : effects on Aβ structure and aggregation
Berntsson, Elina; Vosough, Faraz; **Noormägi, Andra**; Padari, Kärt; Asplund, Fanny; Gielnik, Maciej; Paul, Suman; Jarvet, Jüri; **Tõugu, Vello**; **Palumaa, Peep** ACS chemical neuroscience 2023 / p. 2618-2633 : ill https://doi.org/10.1021/acschemneuro.3c00130 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Chemical modification of met and his residues of amyloid β peptide. Influence of copper ions and effect on fibrillization = Metioniini ja histidiini jääkide keemiline modifitseerimine amüloid-β peptiidis. Vaskioonide mõju ja efekt fibrillisatsioonile
Sardis, Merlin 2021 https://doi.org/10.23658/taltech.19/2021 https://www.ester.ee/record=b5416905*est https://digikogu.taltech.ee/et/Item/acced69c-c690-4cb5-a972-48e1c4ae5c66

Coordination of zinc ions to the key proteins of neurodegenerative diseases: A[beeta], APP, [alfa]-synuclein and PrP
Tõugu, Vello; **Palumaa, Peep** Coordination chemistry reviews 2012 / p. 2219-2224 : ill https://www.researchgate.net/publication/236131300_Coordination_of_zinc_ions_to_the_key_proteins_of_neurodegenerative_diseases_Ab_APP_a-synuclein_and_PrP

Copper(I)-binding properties of de-coppering drugs for the treatment of Wilson disease. α-Lipoic acid as a potential anti-copper agent
Smirnova, Julia; **Kabin, Ekaterina**; **Järving, Ivar**; **Bragina, Olga**; **Tõugu, Vello**; Plitz, Thomas; **Palumaa, Peep** Scientific reports 2018 / art. 1463, 9 p. : ill https://doi.org/10.1038/s41598-018-19873-2 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Copper(I)-binding properties of de-coppering drugs for treatment of Wilson disease
Smirnova, Julia; **Kabin, Ekaterina**; **Järving, Ivar**; **Tõugu, Vello**; Plitz, T.; **Palumaa, Peep** The FEBS journal 2017 / p. 337 https://doi.org/10.1111/febs.14174

Copper(II) ions and the Alzheimer's amyloid-β peptide : affinity and stoichiometry of binding
Tõugu, Vello; **Friedemann, Merlin**; **Tiiman, Ann**; **Palumaa, Peep** AIP conference proceedings 2014 / p. 109-111

Copper(II)-binding equilibria in human blood
Kirsipuu, Tiina; Zadorožnaja, Anna; **Smirnova, Julia**; **Friedemann, Merlin**; Plitz, Thomas; **Tõugu, Vello**; **Palumaa, Peep** Scientific reports 2020 / art. 5686, 10 p. : ill https://doi.org/10.1038/s41598-020-62560-4 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Cu(II) partially protects three histidine residues and the N-terminus of amyloid-β peptide from diethyl pyrocarbonate (DEPC) modification
Friedemann, Merlin; **Tõugu, Vello**; **Palumaa, Peep** FEBS Open Bio 2020 / p. 1072-1081 https://doi.org/10.1002/2211-5463.12857 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Direct competition of ATCUN peptides with human serum albumin for copper(II) ions determined by LC-ICP MS
Noormägi, Andra; **Golubeva, Tatjana**; **Berntsson, Elina**; Wärmländer, Sebastian K.T.S.; **Tõugu, Vello**; **Palumaa, Peep** ACS omega 2023 / p. 33912−33919 https://doi.org/10.1021/acsomega.3c04649 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Effect of agitation on the peptide fibrillization: Alzheimer's amyloid- b peptide 1-42 but not amylin and insulin fibrils can grow under quiescent conditions
Tiiman, Ann; **Noormägi, Andra**; **Friedemann, Merlin**; **Krištal, Jekaterina**; **Palumaa, Peep**; Tõugu, Vello Journal of peptide

science 2013 / p. 386-391 : ill https://doi.org/10.1002/psc.2513 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Effect of methionine-35 oxidation on the aggregation of amyloid-β peptide
Friedemann, Merlin; **Helk, Eneken**; **Tiiman, Ann**; **Zovo, Kairit**; **Palumaa, Peep**; **Tõugu, Vello** Biochemistry and biophysics reports 2015 / p. 94-99 : ill http://dx.doi.org/10.1016/j.bbrep.2015.07.017

Effect of Zn(II) and Cu(II) ions on aggregation and fibrillation of amyloid-beta(1-42) peptide
Palumaa, Peep; **Karafin, Ann**; **Zovo, Kairit**; Chung, Roger S.; Howells, Claire; West, Adrian K.; **Tõugu, Vello** Sinapsa Neuroscience Conference '09 : Ljubljana, 26-29 September 2009 : abstract book 2009 / p. 34

Effects of Zn2+ ions and environmental conditions on the fibrillization of insulin = Zn2+ ioonide ja keskkonnatingimuste mõju insuliini fibrillisatsioonile
Noormägi, Andra 2018 https://digi.lib.ttu.ee/i/?10378 https://www.ester.ee/record=b5148492*est

Ensümaatilise atsüüliülekande reaktsiooni kasutamine orgaaniliste ühendite sünteesil
Tõugu, Vello XVI Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 16th Estonian chemistry days : abstracts of scientific conference 1995 / lk. 145-146

Evaluation of Zn2+- and Cu2+-binding affinities of native Cu,Zn-SOD1 and its G93A mutant by LC-ICP MS
Smirnova, Julia; **Gavrilova, Julia**; **Noormägi, Andra**; **Valmsen, Karin**; **Pupart, Hegne**; Luo, Jinghui; **Tõugu, Vello**; **Palumaa, Peep** Molecules 2022 / art. 3160 https://doi.org/10.3390/molecules27103160 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Faculty of Science : [Tallinn University of Technology]
2012 https://www.ester.ee/record=b2890162*est

Fibrillization of the mixtures of amyloid beta 1-40 and 1-42
Krištal, Jekaterina; **Friedemann, Merlin**; **Tõugu, Vello**; **Palumaa, Peep** Neurodegenerative diseases 2015 / p. 364 http://dx.doi.org/10.1159/000381736

In situ fibrillizing amyloid-beta 1-42 induces neurite degeneration and apoptosis of differentiated SH-SY5Y cells
Krishtal, Jekaterina; **Bragina, Olga**; **Metsla, Kristel**; **Palumaa, Peep**; **Tõugu, Vello** PLoS ONE 2017 / art. e0186636, 16 p. : ill https://doi.org/10.1371/journal.pone.0186636 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

In vitro fibrillization of Alzheimer's amyloid-β peptide (1-42)
Tiiman, Ann; **Krištal, Jekaterina**; **Palumaa, Peep**; **Tõugu, Vello** AIP advances 2015 / p. 092401-1 - 092401-12 : ill https://doi.org/10.1063/1.4921071 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Insulin fibrillization at acidic and physiological pH values is controlled by different molecular mechanisms
Noormägi, Andra; **Valmsen, Karin**; **Tõugu, Vello**; **Palumaa, Peep** The protein journal 2015 / p. 398-403 : ill https://doi.org/10.1007/s10930-015-9634-x Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Interactions of Alzheimer's amyloid-ß peptides with Zn(II) and Cu(II) ions = Alzheimeri amüloid-ß peptiidide interaktsioonid Zn(II) ja Cu(II) ioonidega
Tiiman, Ann 2012 https://www.ester.ee/record=b2866174*est

Interactions of zinc(II) and copper(II) to the full-length Alzheimer's amyloid-B peptide in vitro
Karafin, Ann; **Palumaa, Peep**; **Tõugu, Vello** FEBS journal 2008 / Suppl. 1, p. 222

Interactions of Zn(II) and Cu(II) ions with Alzheimer's amyloid-beta peptide. Metal ion binding, contribution to fibrillization and toxicity
Tõugu, Vello; **Tiiman, Ann**; **Palumaa, Peep** Metallomics 2011 / p. 250-261 : ill https://academic.oup.com/metallomics/article/3/3/250/6016214

Interference of low-molecular substances with the thioflavin-T fluorescence assay of amyloid fibrils
Noormägi, Andra; **Primar, Kateryna**; **Tõugu, Vello**; **Palumaa, Peep** Journal of peptide science 2012 / p. 59-64 : ill https://pubmed.ncbi.nlm.nih.gov/22083646/

Kemofoobia - ülearune paanika või põhjendatud hirm
Kinnunen, Katariina Studioosus 2021 / lk. 34-35 : fot https://www.ester.ee/record=b1558644*est

3. osa. Ensüümkatalüüsi põhimõisted ja kineetika
Biokeemia : lühikursus : õpik kõrgkoolidele 2016 / lk. 67-127 : ill

Label-free high-throughput screening assay for inhibitors of Alzheimer's amyloid-[beeta] peptide aggregation based on

MALDI MS
Zovo, Kairit; **Helk, Eneken**; **Karafin, Ann**; **Tõugu, Vello**; **Palumaa, Peep** Analytical chemistry 2010 / p. 8558-8565 https://www.researchgate.net/publication/46392320_Label-Free_High-Throughput_Screening_Assay_for_Inhibitors_of_Alzheimer's_Amyloid-beta_Peptide_Aggregation_Based_on_MALDI_MS

Lipase action on some non-triglyceride substrates
Vallikivi, Imre; **Lille, Ülo**; **Lõokene, Aivar**; **Metsala, Andrus**; Sikk, Peeter; Tõugu, Vello; Vija, Heiki; **Villo, Ly**; **Parve, Omar** Journal of molecular catalysis B : enzymatic 2003 / 5/6, p. 279-298 : ill https://www.sciencedirect.com/science/article/abs/pii/S1381117703000432

Lipase-catalysed enantioselective hydrolysis : interpretation of the kinetic results in terms of frontier orbital localisation
Parve, Omar; **Vallikivi, Imre**; Metsala, Andrus; **Lille, Ülo**; Tõugu, Vello; Sikk, Peeter; **Käämbre, Tuuli**; Vija, Heiki; **Pehk, Tõnis** Tetrahedron 1997 / 13, p. 4889-4900

Lipase-catalysed enantioselective hydrolysis of bicyclo[3.2.0]heptanol esters in supercritical carbon dioxide
Parve, Omar; **Vallikivi, Imre**; Lahe, Lilja; Metsala, Andrus; **Lille, Ülo**; Tõugu, Vello; Vija, Heiki; **Pehk, Tõnis** Bioorganic & medicinal chemistry letters 1997 / 7, p. 811-816

"Lipolase" allub sekundaarsete alkoholide enantioeelistuse üldisele reeglile nii vesi kui ka superkriitilise SKCO2 keskkonnas = "Lipolase" obeys the general enantiopreference rule of secondary alcohols in water and supercritical (SC)CO2 media as well
Lille, Ülo; Metsala, Andrus; Parve, Omar; Tõugu, Vello; Vija, Heiki XVII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 17th Estonian Chemistry Days : abstracts of scientific conference 1996 / lk. 101-102

Mercury ion binding to apolipoprotein E variants ApoE2, ApoE3, and ApoE4 : similar binding affinities but different structure induction effects
Berntsson, Elina; **Sardis, Merlin**; **Noormägi, Andra**; **Jarvet, Jüri**; Roos, Per M.; **Tõugu, Vello**; Gräslund, Astrid; Wärmländer, Sebastian K.T.S. ACS omega 2022 / p. 28924-28931 https://doi.org/10.1021/acsomega.2c02254 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Metallothionein 2A affects the cell respiration by suppressing the expression of mitochondrial protein cytochrome c oxidase subunit II
Bragina, Olga; **Gurjanova, Karina**; **Krištal, Jekaterina**; **Kulp, Maria**; **Karro, Niina**; **Tõugu, Vello**; **Palumaa, Peep** Journal of bioenergetics and biomembranes 2015 / p. 209-216 : ill https://doi.org/10.1007/s10863-015-9609-9 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Monitoring of A-beta fibrillization using an improved fluorimetric method
Karafin, Ann; **Palumaa, Peep**; **Tõugu, Vello** New Trends in Alzheimer and Parkinson Disorders : ADPD 2009 2009 / p. 255-259 https://www.etis.ee/Portal/Publications/Display/979eb21d-601b-4aa1-b941-121eff184407

Monitoring of amyloid-beta fibrillization using an improved fluorimetric method [Electronic resource]
Karafin, Ann; **Palumaa, Peep**; **Tõugu, Vello** Neurodegenerative diseases 2009 / S1, Alzheimer's and Parkinson's Diseases : Advances, Concepts and New Challenges, p. 799 [CD-ROM] https://www.etis.ee/Portal/Publications/Display/979eb21d-601b-4aa1-b941-121eff184407

Mürgistus koliinesteraasi inhibiitoriga - mida see tähendab?
Lauri, Vahur err.ee 2020 / fot Mürgistus koliinesteraasi inhibiitoriga - mida see tähendab?

NMR monitoring of lipase-catalyzed reactions of prostaglandins : preliminary estimation of reaction velocities
Vallikivi, Imre; **Järving, Ivar**; **Pehk, Tõnis**; **Samel, Nigulas**; Tõugu, Vello; **Parve, Omar** Journal of molecular catalysis B : enzymatic 2004 / p. 15-19 : ill

Ohtlik põhjus, miks õhtuti pea valutab
postimees.ee 2024 Ohtlik põhjus, miks õhtuti pea valutab

Oxidation of Methionine-35 in Alzheimer's amyloid-beta peptide and the aggregation of the oxidized peptide
Friedemann, Merlin; **Helk, Eneken**; **Tiiman, Ann**; **Zovo, Kairit**; **Palumaa, Peep**; **Tõugu, Vello** SpringerPlus 2015 / p. 20, P13 http://dx.doi.org/10.1186/2193-1801-4-S1-P13

Professor: enamikul inimestest jääb lubatud kasu kollageenist saamata
novaator.err.ee 2025 https://novaator.err.ee/1609610768/professor-enamikul-inimestest-jaab-lubatud-kasu-kollageenist-saamata

Redox and metal ion binding properties of human insulin-like growth factor 1 determined by electrospray ionization mass spectrometry
Smirnova, Julia; **Muhhina, Jekaterina**; **Tõugu, Vello**; **Palumaa, Peep** Biochemistry 2012 / p. 5851-5859 : ill https://pubs.acs.org/doi/10.1021/bi300494s

Redox properties of Cys2His2 and Cys4 zinc fingers determined by electrospray ionization mass spectrometry

Smirnova, Julia; **Kabin, Ekaterina**; **Tõugu, Vello**; **Palumaa, Peep** FEBS Open Bio 2018 / p. 923 - 931 https://doi.org/10.1002/2211-5463.12422 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Role of metal ions in amyloidogenic properties of insulin and superoxide dismutase = Metallioonide roll insuliini ja superoksiidi dismutaasi amüloidogeensetes omadustes
Gavrilova, Julia 2022 https://doi.org/10.23658/taltech.44/2022 https://digikogu.taltech.ee/et/Item/693de590-2d9f-43d6-989e-ebac0544151d https://www.ester.ee/record=b5511706*est

Surface carboxylation or PEGylation decreases CuO nanoparticles' cytotoxicity to human cells in vitro without compromising their antibacterial properties
Kubo, Anna-Liisa; **Vasiliev, Grigory**; Vija, Heiki; Krištal, Jekaterina; **Tõugu, Vello**; Visnapuu, Meeri; Kisand, Vambola; **Kahru, Anne**; Bondarenko, Olesja Archives of toxicology 2020 / p. 1561-1573 : ill https://doi.org/10.1007/s00204-020-02720-7

Zn(II) and Cu(II)-induced non-fibrillar aggregates of amyloid-[beta](1-42) peptide are transformed to amyloid fibrils both spontaneously and under the influence of metal chelators
Tõugu, Vello; **Karafin, Ann**; **Zovo, Kairit**; Chung, Roger S.; Howells, Claire; West, Adrian; **Palumaa, Peep** Journal of neurochemistry 2009 / 6, p. 1784-1795 : ill https://pubmed.ncbi.nlm.nih.gov/19619132/

Zn(II) ions co-secreted with insulin suppress inherent amyloidogenic properties of monomeric insulin
Noormägi, Andra; **Gavrilova, Julia**; **Smirnova, Julia**; **Tõugu, Vello**; **Palumaa, Peep** Biochemical journal 2010 / p. 511-518 https://pubmed.ncbi.nlm.nih.gov/20632994/

Zn(II) ions inhibit fibrillization of monomeric insulin
Noormägi, Andra; **Gavrilova, Julia**; **Smirnova, Julia**; **Tõugu, Vello**; **Palumaa, Peep** FEBS journal 2010 / Suppl. 1, p. 256

The missing link in the amyloid cascade of Alzheimer's disease - metal ions
Tiiman, Ann; **Palumaa, Peep**; **Tõugu, Vello** Neurochemistry international 2013 / p. 367-378 : ill https://doi.org/10.1016/j.neuint.2013.01.023 https://www.sciencedirect.com/science/article/pii/S0197018613000326 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

The modelling and kinetic investigation of the lipase-catalysed acetylation of steroisomeric prostaglandins
Vallikivi, Imre; Fransson, Linda; Hult, Karl; **Järving, Ivar**; **Pehk, Tõnis**; **Samel, Nigulas**; **Tõugu, Vello**; **Villo, Ly**; **Parve, Omar** Journal of molecular catalysis B : enzymatic 2005 / p. 62-69 : ill

Toxicity of amyloid beta 1-40 and 1-42 on SH-SY5Y cell line
Krištal, Jekaterina; **Bragina, Olga**; **Metsla, Kristel**; **Palumaa, Peep**; **Tõugu, Vello** SpringerPlus 2015 / p. 21-22, P19 http://dx.doi.org/10.1186/2193-1801-4-S1-P19

Toxicity of amyloid-β peptides varies depending on differentiation route of SH-SY5Y cells
Krištal, Jekaterina; Metsla, Kristel; **Bragina, Olga**; **Tõugu, Vello**; **Palumaa, Peep** Journal of Alzheimer's disease 2019 / p. 879–887 https://doi.org/10.3233/JAD-190705 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Vaskioonide roll Alzheimeri amüloidse beeta peptiide [p. o. peptiidi] agregatsioonil ja toksilisusel
Tõugu, Vello; **Tiiman, Ann**; **Palumaa, Peep** XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 102

Üks küsimus : milline on teie jaoks ideaalne ülikool?
Mente et Manu 2020 / lk. 24-25 , 34-35, 44-45 : portr https://www.ester.ee/record=b1242496*est

α-Lipoic acid has the potential to normalize copper metabolism, which is dysregulated in Alzheimer's disease
Metsla, Kristel; **Kirss, Sigrid**; **Laks, Katrina**; **Sildnik, Gertrud**; **Palgi, Mari**; Palumaa, Teele; **Tõugu, Vello**; **Palumaa, Peep** Journal of Alzheimer's Disease 2022 / p. 715-728 https://doi.org/10.3233/JAD-215026 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

α-Lipoic acid: a potential regulator of copper metabolism in Alzheimer's disease
Kirss, Sigrid; Reinapu, Anette; **Kabin, Ekaterina**; **Smirnova, Julia**; **Tõugu, Vello**; **Palumaa, Peep** Frontiers in Molecular Biosciences 2024 / art. 1451536 https://doi.org/10.3389/fmolb.2024.1451536

Электростатический солевой эффект во взаимодействиях ацетилхолинэстеразы и трипсина с катионными лигандами : автореферат диссертации ... кандидата химических наук (02.00.03)
Tõugu, Vello 1991 https://www.ester.ee/record=b1190402*est