

Alzheimeri ravi võib peituda mälus

Timmusk, Tõnis; Bramham, Clive Postimees 2017 / lk. 26-27 <https://teadus.postimees.ee/4314339/eesti-ja-norra-teadlased-alzheimeri-ravi-voib-peituda-malumolekulides>

Altered expression profile of igLON family of neural cell adhesion molecules in the dorsolateral prefrontal cortex of schizophrenic patients

Karis, Karina; Eskla, Katri-Liis; Kaare, Maria; Täht, Karin; Tuusov, Jana; Visnapuu, Tanel; Innos, Jürgen; **Timmusk, Tõnis** Frontiers in Molecular Neuroscience 2018 / art. 8 <https://doi.org/10.3389/fnmol.2018.00008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Alternative splicing and expression of human and mouse NFAT genes

Vihma, Hanna; Pruunsild, Priit; **Timmusk, Tõnis** Genomics 2008 / p. 279-291 : ill https://www.researchgate.net/publication/23145218_Alternative_splicing_and_expression_of_human_and_mouse_NFAT_genes

Alusuuringud on Eesti riigile hädavajalikud : teadlaste märgukiri

Allik, Jüri; Engelbrecht, Jüri; Saarma, Mart; **Timmusk, Tõnis** Eesti Päevaleht 2004 / lk. 3

AP-1 transcription factors mediate BDNF-positive feedback loop in cortical neurons

Tuvikene, Jürgen; Pruunsild, Priit; Orav, Ester; Esvald, Eli-Eelika; **Timmusk, Tõnis** Journal of neuroscience 2016 / p. 1290-1305 : ill <https://doi.org/10.1523/JNEUROSCI.3360-15.2016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Autismi loodetakse diagnoosida vereprooviga : [Warwicki ülikoolis arandatavat analüüsimeetodit kommenteerib Tõnis Timmusk]

Horisont 2018 / lk. 3 : ill https://www.ester.ee/record=b1072243*est <http://www.horisont.ee/arhiiv-2018/Horisont-2-2018.pdf>

BAC transgenic mice reveal distal cis-regulatory elements governing BDNF gene expression

Koppel, Indrek; Aid-Pavlidis, Tamara; Jaanson, Kaur; Sepp, Mari; Palm, Kaia; **Timmusk, Tõnis** Genesis 2010 / 4, p. 214-219 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2978326/>

BAC-based cellular model for screening regulators of BDNF gene transcription

Jaanson, Kaur; Sepp, Mari; Aid-Pavlidis, Tamara; **Timmusk, Tõnis** BMC neuroscience 2014 / p. 1-12 : ill <https://doi.org/10.1186/1471-2202-15-75> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bidirectional transcription from human LRRTM2/CTNNA1 and LRRTM1/CTNNA2 gene loci leads to expression of N-terminally truncated CTNNA1 and CTNNA2 isoforms

Kask, Martin; Pruunsild, Priit; **Timmusk, Tõnis** Biochemical and biophysical research communications 2011 / p. 56-61 : ill <https://pubmed.ncbi.nlm.nih.gov/21708131/>

The CB₁ cannabinoid receptor signals striatal neuroprotection via a PI3K/Akt/mTORC1/BDNF pathway

Blazquez, C.; Chiarlone, A.; **Pruunsild, Priit**; **Timmusk, Tõnis** Cell death and differentiation 2015 / p. 1618-1629 : ill <https://doi.org/10.1038/cdd.2015.11> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cell type-specific labelling of newly synthesized proteins by puromycin inactivation

Cabrera-Cabrera, Florencia; Tull, Helena; Capuana, Roberta; Kasvandik, Sergio; **Timmusk, Tõnis**; **Koppel, Indrek** Journal of biological chemistry 2023 / art. 105129, 12 p. : ill <https://doi.org/10.1016/j.jbc.2023.105129> [Journal metrics at Scopus](#) [Article at Scopus](#)

Cocaine-induced epigenetic DNA modification in mouse addiction-specific and non-specific tissues

Anier, Kaili; Urb, Mari; Kipper, Karin; Herodes, Koit; **Timmusk, Tõnis** Neuropharmacology 2018 / p. 13-25 <https://doi.org/10.1016/j.neuropharm.2018.06.036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Corticosterone induces DNA methyltransferases expression in rat cortical neurons

Urb, Mari; Anier, Kaili; Matsalu, Terje; Aonurm-Helm, Anu; **Timmusk, Tõnis** SpringerPlus 2015 / p. 30, P50 <http://dx.doi.org/10.1186/2193-1801-4-S1-P50>

CREB family transcription factors are major mediators of BDNF transcriptional autoregulation in cortical neurons

Esvald, Eli-Eelika; **Tuvikene, Jürgen**; **Sirp, Alex**; Patil, Sudarshan; Bramham, Clive; **Timmusk, Tõnis** Journal of neuroscience 2020 / p. 1405-1426 : ill <https://doi.org/10.1523/JNEUROSCI.0367-19.2019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Daughterless, the Drosophila orthologue of TCF4, is required for associative learning and maintenance of the synaptic proteome

Tamberg, Laura; Jaago, Mariliis; Säälk, Kristi; **Sirp, Alex**; **Tuvikene, Jürgen**; Šubina, Anastassia; Kiir, Carl Alexander; **Nurm, Kaja**; **Sepp, Mari**; **Timmusk, Tõnis**; **Palgi, Mari** Disease Models & Mechanisms 2020 / art. dmm042747, 15 p. : ill <https://doi.org/10.1242/dmm.042747> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Deciphering molecular basis of Schwann cell development = Schwanni rakkude arengu molekulaarse mehhanismide selgitamine

Piirsoo, Marko; Timmusk, Tõnis; Meijer, Dies 2009 https://www.ester.ee/record=b2546066*est

Dendritic localization of mammalian neuralized mRNA encoding a protein with transcription repression activities

Timmusk, Tõnis; Palm, Kaia; Belluardo, N.; Mudo, G.; Neuman, Toomas Molecular and cellular neurosciences 2002 / 4, p. 649-668
<https://www.sciencedirect.com/science/article/pii/S1044743102911486>

Differential patterns of cross-reactive antibody response against SARS-CoV-2 spike protein detected for chronically ill and healthy COVID-19 naïve individuals

Jaago, Mariliis; Rähni, Annika; Pupina, Nadezda; Sadam, Helle; Tuvikene, Jürgen; Avarlaid, Annela; Planken, Anu; Planken, Margus; Haring, Liina; Vasar, Eero; Bacevic, Miljana; Lambert, France; Kalso, Eija; Pussinen, Pirkko; Tienari, Pentti J.; Vaheri, Antti; Lindholm, Dan; Timmusk, Tõnis; Ghaemmaghami, Amir M.; Palm, Kaia Scientific reports 2022 / art. 16817 : ill
<https://doi.org/10.1038/s41598-022-20849-6> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Differential regulation of Bdnf expression in cortical neurons by class-selective histone deacetylase inhibitors

Koppel, Indrek; Timmusk, Tõnis Neuropharmacology 2013 / p. 106-115 : ill <https://doi.org/10.1016/j.neuropharm.2013.07.015> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Differential regulation of the BDNF gene in cortical and hippocampal neurons

Esvald, Eli-Eelika; Tuvikene, Jürgen; Moistus, Andra; Rannaste, Käthy; Kõomägi, Susann; Timmusk, Tõnis Journal of neuroscience 2022 / p. 9110-9128 <https://doi.org/10.1523/JNEUROSCI.2535-21.2022> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Dissecting stimulus-dependent transcription of brain-derived neurotrophic factor = Aju-päritolu neurotroofse teguri stiimulsõltuva transkriptsiooni uuringud

Esvald, Eli-Eelika 2023 <https://doi.org/10.23658/taltech.32/2023> <https://digikogu.taltech.ee/et/Item/6222c009-c82d-4efb-98c2-51bf2f148b52>
https://www.ester.ee/record=b5567508*est

Dopamine crossreacts with adrenoreceptors in cortical astrocytes to induce BDNF expression, CREB signaling and morphological transformation

Koppel, Indrek; Jaanson, Kaur; Klasche, Airi; Tuvikene, Jürgen; Tiirik, Tõnis; Pärn, Angela; Timmusk, Tõnis GLIA 2018 / p. 206-216 : ill <https://doi.org/10.1002/glia.23238> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Drastic effects on the microbiome of a young rower engaged in high-endurance exercise after a month usage of a dietary fiber supplement

Jaago, Mariliis; Timmusk, Uku Siim; Timmusk, Tõnis; Palm, Kaia Frontiers in Nutrition 2021 / art. #654008, 11 p. : ill
<https://doi.org/10.3389/fnut.2021.654008> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Eesti teadlased otsivad ravi levinud haigusele, mis ajab silmad villi [Võrguväljaanne]

Timmusk, Tõnis novaator.err.ee 2021 / fot [Eesti teadlased otsivad ravi levinud haigusele, mis ajab silmad villi](https://novaator.err.ee/1609664366/eesti-teadlased-leid-voib-sillutada-teed-uumoodi-depressiooniravile)

Eesti teadlaste leid võib sillutada teed uutmoodi depressiooniravile

novaator.err.ee 2025 <https://novaator.err.ee/1609664366/eesti-teadlased-leid-voib-sillutada-teed-uumoodi-depressiooniravile>
<https://doi.org/10.1523/JNEUROSCI.0313-24.2025>

Efficient use of a translation start codon in BDNF exon I

Koppel, Indrek; Tuvikene, Jürgen; Lekk, Ingrid; Timmusk, Tõnis Journal of neurochemistry 2015 / p. 1015-1025 : ill
<https://doi.org/10.1111/jnc.13124> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

An 840 kb distant upstream enhancer is a crucial regulator of catecholamine-dependent expression of the BDNF gene in astrocytes

Avarlaid, Annela; Esvald, Eli-Eelika; Koppel, Indrek; Parkman, Annabel; Zhuravskaya, Anna; Makeyev, Eugene V.; Tuvikene, Jürgen; Timmusk, Tõnis Glia 2023 / p. 90-110 : ill <https://doi.org/10.1002/glia.24463>

Electrochemical sensor based on molecularly imprinted polymer for rapid quantitative detection of brain-derived neurotrophic factor

Ayankojo, Akinrinade George; Boroznjak, Roman; Reut, Jekaterina; Tuvikene, Jürgen; Timmusk, Tõnis; Sõritski, Vitali Sensors and Actuators B: Chemical 2023 / art. 134656 <https://doi.org/10.1016/j.snb.2023.134656> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Estonian scientists' find could pave the way for new depression treatment

err.ee 2025 <https://news.err.ee/1609664915/estonian-scientists-find-could-pave-the-way-for-new-depression-treatment>
<https://doi.org/10.1523/JNEUROSCI.0313-24.2025>

Exploration of host-agent-environment interactions using tools of metagenomic sequencing and next generation phage

display = Metagenoomi sekveneerimise ja järgmise põlvkonna faagidisplei kasutamine inimese eksposoomi kirjeldamisel
Jaago, Mariliis 2023 <https://doi.org/10.23658/taltech.56/2023> <https://digikogu.taltech.ee/et/Item/0220f3e8-c452-4c02-a117-d8c343375d24>
https://www.ester.ee/record=b5645213*est

Expression analysis of the CLCA gene family in mouse and human with emphasis on the nervous system

Piirsoo, Marko; Meijer, Dies; **Timmusk, Tõnis** BMC developmental biology 2009 / p. 10 : ill
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2653474/>

Expression of alternative transcription factor 4 mRNAs and protein isoforms in the developing and adult rodent and human tissues

Sirp, Alex; Shubina, Anastassia; Tuvikene, Jürgen; **Tamberg, Laura;** Kiir, Carl Sander; **Kranich, Laura;** **Timmusk, Tõnis** Frontiers in Molecular Neuroscience 2022 / art. 1033224 <https://doi.org/10.3389/fnmol.2022.1033224> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Expression of NGF and GDNF family members and their receptors during peripheral nerve development and differentiation of Schwann cells in vitro

Piirsoo, Marko; Kaljas, Anne; **Tamm, Karin;** **Timmusk, Tõnis** Neuroscience letters 2010 / 1, p. 135-140 : ill
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808476/>

Forkhead transcription factor FOXO3a levels are increased in Huntington disease because of overactivated positive autoregulation

Kannike, Kaja; Sepp, Mari; Zuccato, Chiara; Cattaneo, Elena; **Timmusk, Tõnis** Journal of biological chemistry 2014 / p. 32845-32857 : ill <https://doi.org/10.1074/jbc.M114.612424> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fragment-based QSAR approach for novel indole-like TrkA receptor antagonist

Tammiku-Taul, Jaana; Dobchev, Dimitar Atanasov; Karelson, Mati; **Timmusk, Tõnis;** **Park, Rahel;** **Jaanson, Kaur;** **Luberg, Kristi;** **Kananovich, Dzmitry;** **Noole, Artur;** **Kanger, Tõnis;** **Lopp, Margus** 8th International Symposium on Computational Methods in Toxicology and Pharmacology Integrating Internet Resources (CMTPI-2015) : Chios, Greece, June 21-25, 2015 : book of abstracts 2015 / p. 68

The Fuchs corneal dystrophy-associated CTG repeat expansion in the TCF4 gene affects transcription from its alternative promoters

Sirp, Alex; Leite, Kristian; Tuvikene, Jürgen; **Nurm, Kaja; Sepp, Mari;** **Timmusk, Tõnis** Scientific reports 2020 / art. 18424
<https://doi.org/10.1038/s41598-020-75437-3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Functional consequences of TCF4 missense substitutions associated with Pitt-Hopkins syndrome, mild intellectual disability, and schizophrenia

Sirp, Alex; Roots, Kaisa; **Nurm, Kaja;** Tuvikene, Jürgen; **Sepp, Mari;** **Timmusk, Tõnis** The journal of biological chemistry 2021 / art. 101381 <https://doi.org/10.1016/j.jbc.2021.101381> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Functional diversity of human basic helix-loop-helix transcription factor TCF4 isoforms generated by alternative 5' exon usage and splicing

Sepp, Mari; **Kannike, Kaja;** **Eesmaa, Ave;** **Urb, Mari;** **Timmusk, Tõnis** PLoS ONE 2011 / p. e22138 [14 p.] : ill
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0022138>

Functions of the basic helix-loop-helix transcription factor TCF4 in health and disease = Aluselise heeliks-ling-heeliks transkriptsioonifaktori TCF4 funktsioonid ja seosed haigustega

Sepp, Mari 2012

Geenide sosinad: TalTechi teadus avab ukse ajutervise saladustesse

Vaaks, Eveliis Trialoog 2025 <https://trialoog.taltech.ee/geenide-sosinad-taltech-teadus-avab-ukse-ajutervise-saladustesse/>

GLI2 cell-specific activity is controlled at the level of transcription and RNA processing : consequences to cancer metastasis

Sadam, Helle; Liivas, Urmas; **Kazantseva, Anna;** **Pruunsild, Priit;** Kazantseva, Jekaterina; **Timmusk, Tõnis;** Neuman, Toomas; **Palm, Kaia** Biochimica et Biophysica Acta - Molecular Basis of Disease 2016 / p. 46 - 55 <https://doi.org/10.1016/j.bbadis.2015.10.008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Glucocorticoid receptor stimulation resulting from early life stress affects expression of DNA methyltransferases in rat prefrontal cortex

Urb, Mari; Anier, Kaili; Matsalu, Terje; **Koppel, Indrek;** **Timmusk, Tõnis** Journal of molecular neuroscience 2019 / p. 99–110 : ill
<https://doi.org/10.1007/s12031-019-01286-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Haruldane haigus võib anda viiteid skisofreenia raviks : [TTÜ professori Tõnis Timmuski ning kahe teaduri, Mari Sepa ja Priit Pruunsilla artikli põhjal]

Aru, Erik; **Timmusk, Tõnis**; **Sepp, Mari**; **Pruunsild, Priit** Mente et Manu 2012 / lk. 2 https://www.ester.ee/record=b1242496*est

High-intensity interval and moderate-intensity continuous training on cerebral energy metabolism in older rats.

Marcourt, Cecile; Rivera, Claudio; **Tuvikene, Jürgen**; Langeard, Antoine; **Esvald, Eli-Eelika**; **Cabrera-Cabrera, Florencia**; **Timmusk, Tõnis**; **Temprado, Jean-Jacques**; Laurin, Jerome GeroScience 2025 / 16 p <https://doi.org/10.1007/s11357-025-01820-5>

Human TrkB gene : novel alternative transcripts, protein isoforms and expression pattern in the prefrontal cerebral cortex during postnatal development

Luberg, Kristi; Wong, Jenny; Weickert, Cynthia Shannon; **Timmusk, Tõnis** Journal of neurochemistry 2010 / 4, p. 952-964 : ill <https://pubmed.ncbi.nlm.nih.gov/20193039/>

Human tropomyosin-related kinase A and B : from transcript diversity to novel inhibitors = Inimese tropomüosiin-seoselised kinaasid A ja B : transkriptide mitmekesisusest uudsete inhibiitoriteni

Luberg, Kristi 2017 <https://digi.lib.ttu.ee/i/?7373> https://www.ester.ee/record=b4665007*est

Huntingtin interacts with REST/NRSF to modulate the transcription of NRSE-controlled neuronal genes

Zuccato, Chiara; Tartari, Marzia; **Timmusk, Tõnis** Nature genetics 2003 / 1, p. 76-83 <https://pubmed.ncbi.nlm.nih.gov/12881722/>

Identification of cis-elements and transcription factors regulating neuronal activity-dependent transcription of human BDNF gene

Pruunsild, Priit; **Sepp, Mari**; **Orav, Ester**; **Koppel, Indrek**; **Timmusk, Tõnis** The journal of neuroscience 2011 / p. 3295-3308 : ill <https://pubmed.ncbi.nlm.nih.gov/21368041/>

Immune response to a conserved enteroviral epitope of the major capsid VP1 protein is associated with lower risk of cardiovascular disease

Pupina, Nadežda; **Avarlaid, Annela**; **Sadam, Helle**; Pihlak, Arno; **Jaago, Mariliis**; **Tuvikene, Jürgen**; **Rähni, Annika**; Planken, Anu; Planken, Margus; Kalso, Eija; Tienari, Pentti J.; Nieminen, Janne K.; Seppänen, Mikko R.J.; Vaheri, Antti; Lindholm, Dan; Sinisalo, Juha; Pussinen, Pirkko; **Timmusk, Tõnis**; **Palm, Kaia** eBioMedicine 2022 / art. 103835, 14 p. : ill <https://doi.org/10.1016/j.ebiom.2022.103835> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Indole-like Trk receptor antagonists

Tammiku-Taul, Jaana; **Park, Rahel**; **Jaanson, Kaur**; **Luberg, Kristi**; **Dobchev, Dimitar Atanasov**; **Kananovich, Dzmitry**; **Noole, Artur**; Mandel, Merle; Kaasik, Allen; **Lopp, Margus**; **Timmusk, Tõnis**; Karelson, Mati European journal of medicinal chemistry 2016 / p. 541-552 : ill <https://doi.org/10.1016/j.ejmech.2016.06.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Inimaju asümmeetriast, käelisusest ja skisofreeniast

Koppel, Indrek; **Pruunsild, Priit**; **Timmusk, Tõnis** Tallinna Tehnikaülikooli aastaraamat 2007 2008 / lk. 109-112

The intellectual disability and schizophrenia associated transcription factor TCF4 is regulated by neuronal activity and protein kinase A

Sepp, Mari; **Vihma, Hanna**; **Nurm, Kaja**; **Urb, Mari**; Page, Stephanie Cerceo; **Roots, Kaisa**; **Hark, Anu**; Maher, Brady J.; **Pruunsild, Priit**; **Timmusk, Tõnis** Journal of neuroscience 2017 / p. 10516-10527 : ill <https://doi.org/10.1523/JNEUROSCI.1151-17.2017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Introducing Pitt-Hopkins syndrome-associated mutations of TCF4 to Drosophila daughterless

Tamberg, Laura; **Sepp, Mari**; **Timmusk, Tõnis**; **Palgi, Mari** Biology open 2015 / p. 1762-1771 : ill <https://doi.org/10.1242/bio.014696> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Introducing Pitt-Hopkins Syndrome-associated mutations of TCF4 to Drosophila daughterless : [conference paper]

Palgi, Mari; **Tamberg, Laura**; **Timmusk, Tõnis** VI Baltic Genetics Congress : September 30 - October 3, 2015, Institute of Molecular and Cell Biology, Tartu, Estonia : book of abstracts 2015 / 1 p

Intronic enhancer region governs transcript-specific Bdnf expression in rodent neurons

Tuvikene, Jürgen; **Esvald, Eli-Eelika**; **Rähni, Annika**; **Uustalu, Kaie**; Zhuravskaya, Anna; **Avarlaid, Annela**; Makeyev, Eugene V.; **Timmusk, Tõnis** eLife 2021 / art. e65161 <https://doi.org/10.7554/eLife.65161> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Isoform-specific reduction of the basic helix-Loop-helix transcription factor TCF4 levels in Huntington's disease

Nurm, Kaja; **Sepp, Mari**; Castany-Pladevall, Carla; Creus-Muncunill, Jordi; **Tuvikene, Jürgen**; **Sirp, Alex**; **Vihma, Hanna**; Blake, Derek J.; Perez-Navarro, Esther; **Timmusk, Tõnis** eNeuro 2021 / 53 p. : ill <https://doi.org/10.1523/ENEURO.0197-21.2021> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Keemia ja molekulaarbioloogia valdkonna aastapreemia tööde tsükli "Neuraalse aktiivsusega reguleeritud geeniekspressiooni mehhanismid" eest : Tõnis Timmusk. Neuraalse aktiivsusega reguleeritud geeniekspressiooni mehhanismid

Timmusk, Tõnis Eesti Vabariigi preemiad 2020 : teadus. F. J. Wiedemanni keeleauehind. Sport. Kultuur. Haridus 2020 / lk. 74-90 : ill., portr https://www.ester.ee/record=b1226072*est

Kuidas totter kolm botaanikatunnis viis Tõnis Timmuski teaduse elutööpreemia ja teenetemärgini

Timmusk, Tõnis postimees.ee 2024 [Kuidas totter kolm botaanikatunnis viis Tõnis Timmuski teaduse elutööpreemia ja teenetemärgini](#)

Käelisuse ja skisofreenia seostest

Timmusk, Tõnis Horisont 2010 / 5, lk. 6 : portr https://artiklid.elnet.ee/record=b2155629*est

Long-lasting behavioural and molecular alterations induced by early postnatal fluoxetine exposure are restored by chronic fluoxetine treatment in adult mice

Karpova, Nina N.; Lindholm, Jesse; **Pruunsild, Priit; Timmusk, Tõnis**; Castren, Eero European neuropsychopharmacology 2009 / p. 97-108 : ill <https://pubmed.ncbi.nlm.nih.gov/18973993/>

LRRTM1 on chromosome 2p12 is a maternally suppressed gene that is associated paternally with handedness and schizophrenia

Francks, C.; Maegawa, S.; **Timmusk, Tõnis; Pruunsild, Priit; Koppel, Indrek** Molecular psychiatry 2007 / p. 1129-1139 https://www.researchgate.net/publication/6171287_LRRTM1_on_chromosome_2p12_is_a_maternally_suppressed_gene_that_is_associated_paternally_with_handedness_and_schizophrenia

MANF is widely expressed in mammalian tissues and differently regulated after ischemic and epileptic insults in rodent brain

Lindholm, Päivi; Peränen, Johan; Andressoo, Jaan-Olle; Kalkkinen, Nisse; Kokaia, Zaal; Lindvall, Olle; **Timmusk, Tõnis; Saarma, Mart** Molecular and cellular neuroscience 2008 / p. 356-371 : ill <https://pubmed.ncbi.nlm.nih.gov/18718866/>

Melanoma-specific antigen-associated antitumor antibody reactivity as an immune-related biomarker for targeted immunotherapies

Rähni, Annika; Jaago, Mariliis; Sadam, Helle; Pupina, Nadežda; Pihlak, Arno; **Tuvikene, Jürgen**; Annuk, Margus; Mägi, Andrus; **Timmusk, Tõnis**; Ghaemmaghami, Amir M.; **Palm, Kaia** Communications medicine 2022 / 11 p. : ill <https://doi.org/10.1038/s43856-022-00114-7>

Meta-coexpression conservation analysis of microarray data: a "subset" approach provides insight into brain-derived neurotrophic factor regulation

Aid-Pavlidis, Tamara; Pavlidis, Pavlos; **Timmusk, Tõnis** BMC genomics 2009 / p. 420 : ill <https://bmcbgenomics.biomedcentral.com/articles/10.1186/1471-2164-10-420>

Molecular characterization of basic helix-loop-helix transcription factor TCF4 : from expression to function = Aluselise heeliks-ling-heeliks transkriptsiooniteguri TCF4 ekspressiooni ja funktsiooni kirjeldamine

Sirp, Alex 2023 <https://doi.org/10.23658/taltech.25/2023> <https://digikogu.taltech.ee/et/Item/67e0b91f-4c35-4eeb-ae4-5da8e859ae6e> https://www.ester.ee/record=b5567490*est

Mouse and rat BDNF gene structure and expression revisited

Aid-Pavlidis, Tamara; Kazantseva, Anna; Piirsoo, Marko; Palm, Kaia; Timmusk, Tõnis Journal of neuroscience research 2007 / 3, p. 525-535 <https://onlinelibrary.wiley.com/doi/full/10.1002/jnr.21139>

Neuralized family member NEURL1 is a ubiquitin ligase for the cGMP-specific phosphodiesterase 9A

Taal, Kati; Tuvikene, Jürgen; Rullinkov, Grete; Piirsoo, Marko; Sepp, Mari; Neuman, Toomas; Tamme, Richard; Timmusk, Tõnis Scientific reports 2019 / art. 7104, 12 p. : ill <https://doi.org/10.1038/s41598-019-43069-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Neuralized-2: expression in human and rodents and interaction with Delta-like ligands

Rullinkov, Grete; Tamme, Richard; Sarapuu, Anzelika; Lauren, Juha; Sepp, Mari; Palm, Kaia; Timmusk, Tõnis Biochemical and biophysical research communications 2009 / 3, p. 420-425 : ill <https://www.sciencedirect.com/science/article/pii/S0006291X09017434>

Neuronal activity-dependent transcription factors and regulation of human BDNF gene = Närvitalitlusest sõltuvad transkriptsioonifaktorid ja inimese BDNF geeni avaldumise regulatsioon

Pruunsild, Priit 2010 https://www.ester.ee/record=b2653637*est

Neuronal K⁺/Cl⁻ co-transporter (KCC2) transgenes lacking neurone restrictive silencer element recapitulate CNS neurone-specific expression and developmental up-regulation of endogenous KCC2 gene

Uvarov, Pavel; Pruunsild, Priit; Timmusk, Tõnis; Airaksinen, Matti S. Journal of neurochemistry 2005 / 4, p. 1144-1155 <https://pubmed.ncbi.nlm.nih.gov/16271048/>

Neuronal-activity regulated gene expression : emphasis on BDNF

Timmusk, Tõnis SpringerPlus 2015 / p. 11, L38 <http://dx.doi.org/10.1186/2193-1801-4-S1-L38>

Neuronal-activity regulated gene expression: emphasis on BDNF

Timmusk, Tõnis SpringerPlus 2015 / 32 p <https://doi.org/10.1186/2193-1801-4-S1-L38> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Neurotrofiinid ja nende koht normis ja patoloogias

Timmusk, Tõnis Tallinna Tehnikaülikooli aastaraamat 2004 2005 / lk. 46-49

Neurotroofsed tegurid

Timmusk, Tõnis; Koppel, Indrek; Pruunsild, Priit; Sepp, Mari; Tamme, Richard Eesti Arst 2007 / 9, lk. 614-621
<https://eestiartst.ee/neurotroofsed-tegurid/> https://artiklid.elnet.ee/record=b1059643*est

Neurotrophins : transcription and translation

West, A. E.; Pruunsild, Priit; Timmusk, Tõnis Neurotrophic factors 2014 / p. 67-100 https://doi.org/10.1007/978-3-642-45106-5_4
[Article collection metrics at Scopus](#) [Article at Scopus](#)

NF-κB-dependent regulation of brain-derived neurotrophic factor in hippocampal neurons by X-linked inhibitor of apoptosis protein

Kairisalo, Minna; Korhonen, Laura; Sepp, Mari; Pruunsild, Priit; Kukkonen, Jyrki; Kivinen, Jenni; Timmusk, Tõnis; Blomgren, Klas; Lindholm, Dan European journal of neuroscience 2009 / 6, p. 958-966 : ill <https://pubmed.ncbi.nlm.nih.gov/19735291/>

A novel gene family encoding leucine-rich repeat transmembrane proteins differentially expressed in the nervous system

Lauren, Juha; Airaksinen, Matti S.; Saarma, Mart; Timmusk, Tõnis Genomics 2003 / 4, p. 411-421 : ill
<https://www.sciencedirect.com/science/article/pii/S0888754303000302>

Novel neurotrophic factor CDNF protects and rescues midbrain dopamine neurons in vivo

Lindholm, Päivi; Timmusk, Tõnis; Saarma, Mart Nature 2007 / p. 73-77 <https://doi.org/10.1038/nature05957>

A novel N-terminal isoform of the neuron-specific K-Cl cotransporter KCC2

Uvarov, Pavel; Ludwig, Anastasia; Markkanen, Marika; Pruunsild, Priit; Kaila, Kai; Delpire, Eric; Timmusk, Tõnis; Rivera, Claudio; Airaksinen, Matti S. Journal of biological chemistry 2007 / 42, p. 30570-30576 <https://pubmed.ncbi.nlm.nih.gov/17715129/>

Novel transcripts reveal a complex structure of the human TRKA gene and imply the presence of multiple protein isoforms

Luberg, Kristi; Park, Rahel; Aleksejeva, Elina; Timmusk, Tõnis BMC neuroscience 2015 / p. 1-21 : ill
<https://doi.org/10.1186/s12868-015-0215-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Novel transgenic models based on bacterial artificial chromosomes for studying BDNF gene regulation = Bakteriaalsetel kunstlikel kromosoomidel põhinevad transgeensed mudelid BDNF geeni regulatsiooni uurimiseks

Jaanson, Kaur 2015 https://www.ester.ee/record=b4494705*est

N-terminally truncated BAF57 isoforms contribute to the diversity of SWI/SNF complexes in neurons

Kazantseva, Anna; Sepp, Mari; Kazantseva, Jekaterina; Sadam, Helle; Pruunsild, Priit; Timmusk, Tõnis; Neuman, Toomas; Palm, Kaia Journal of neurochemistry 2009 / 3, p. 807-818 : ill <https://pubmed.ncbi.nlm.nih.gov/19245665/>

Nuclear factor of activated T-cells isoform c4 (NFATc4/NFAT3) as a mediator of anti-apoptotic transcription in NMDA receptor-stimulated cortical neurons

Vashishta, Aruna; Habas, Agata; Pruunsild, Priit; Zheng, Jing-Juan; Timmusk, Tõnis; Hetman, Michal Journal of neuroscience 2009 / 48, p. 15331-15340 <https://pubmed.ncbi.nlm.nih.gov/19955386/>

Nucleolar enrichment of brain proteins with critical roles in human neurodevelopment

Slomnicki, Lukasz P.; Malinowska, Agata; Sepp, Mari; Timmusk, Tõnis Molecular & cellular proteomics 2016 / p. 2055-2075
<https://doi.org/10.1074/mcp.M115.051920> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Närvisüsteemi haiguste molekulaarsetest mehhanismidest : kommentaar Eesti Vabariigi teaduse aastapreemia pälvinud tööde tsüklile

Timmusk, Tõnis Tallinna Tehnikaülikooli aastaraamat 2008 2009 / lk. 299-304

Partial deletion of TCF4 in three generation family with nonsyndromic intellectual disability, without features of Pitt-Hopkins syndrome

Kharbanda, Mira; Kannike, Kaja; Lampe, Anne; Berg, Jonathan; Timmusk, Tõnis; Sepp, Mari European journal of medical genetics 2016 / p. 310-314 : ill <https://doi.org/10.1016/j.ejmg.2016.04.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

PCSK9 deficiency alters brain lipid composition without affecting brain development and function

Pärn, Angela; Olsen, Ditte; Tuvikene, Jürgen; Kaas, Mathias; Borisova, Ekaterina; Bilgin, Mesut; Elhauge, Mie; Vilstrup, Joachim; Madsen, Peder; Ambrozkiwicz, Mateusz C.; Goz, Roman U.; Timmusk, Tõnis; Tarabykin, Victor; Gustafsen, Camilla; Glerup,

Simon Frontiers in molecular neuroscience 2023 / art. 1084633 <https://doi.org/10.3389/fnmol.2022.1084633> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

PGC-1 α signaling increases GABA(A) receptor subunit $\alpha 2$ expression, GABAergic neurotransmission and anxiety-like behavior in mice

Vanaveski, Taavi; Molchanova, Svetlana; Pham, Dan Duc; Schäfer, Annika; Pajanoja, Ceren; Narvik, Jane; Srinivasan, Vignesh; Urb, Mari; Koivisto, Maria; **Timmusk, Tõnis** Frontiers in Molecular Neuroscience 2021 / art. 588230
<https://doi.org/10.3389/fnmol.2021.588230> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Pitt–Hopkins syndrome-associated mutations in TCF4 lead to variable impairment of the transcription factor function ranging from hypomorphic to dominant-negative effects

Sepp, Mari; Pruunsild, Priit; Timmusk, Tõnis Human molecular genetics 2012 / p. 2873-2888
<https://pubmed.ncbi.nlm.nih.gov/22460224/>

Rakuvälise serotoniini tasemed ja neurotroofiliste faktorite ekspressioon kõrge või madala uudistamisaktiivsusega rottidel

Harro, Jaanus; Mällo, Tanel; Kõiv, Kadri; **Koppel, Indrek**; Raudkivi, Karita; Uustare, Ain; Rinken, Ago; **Timmusk, Tõnis** XXX Eesti keemiapäevad : teaduskonverentsi teesid = 30th Estonian Chemistry Days : abstracts of scientific conference 2007 / lk. 32-33

Rat NEURL1 3'UTR is alternatively spliced and targets mRNA to dendrites

Jaagura, Madis; Taal, Kati; Koppel, Indrek; Tuvikene, Jürgen; Timmusk, Tõnis; Tamme, Richard Neuroscience letters 2016 / p. 71-76 : ill <https://doi.org/10.1016/j.neulet.2016.10.041> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Regulation of different human NFAT isoforms by neuronal activity

Vihma, Hanna; Luhakooder, Mirjam; Pruunsild, Priit; Timmusk, Tõnis Journal of neurochemistry 2016 / p. 394-408 : ill <https://doi.org/10.1111/jnc.13568> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Regulation of extracellular serotonin levels and brain-derived neurotrophic factor in rats with high and low exploratory activity

Mällo, Tanel; Kõiv, Kadri; **Koppel, Indrek**; Raudkivi, Karita; Uustare, Ain; Rinken, Ago; **Timmusk, Tõnis**; Harro, Jaanus Brain research 2008 / p. 110-117 : ill <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568862/>

Regulation of NFAT transcription factors by neuronal activity = NFAT tran[s]kriptsioonitegurite närvitalitlusest sõltuv regulatsioon

Vihma, Hanna 2018 <https://digi.lib.ttu.ee/i/?9924> https://www.ester.ee/record=b5050413*est

Revisiting the expression of BDNF and its receptors in mammalian development

Esvald, Eli-Eelika; Tuvikene, Jürgen; Kiir, Carl Sander; Avarlaid, Annela; Tamberg, Laura; Sirp, Alex; Shubina, Anastassia; Cabrera-Cabrera, Florencia; Pihlak, Arno; **Koppel, Indrek**; Palm, Kaia; **Timmusk, Tõnis** Frontiers in Molecular Neuroscience 2023 / art. 1182499 <https://doi.org/10.3389/fnmol.2023.1182499> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The role of DNA methyltransferase activity in cocaine treatment and withdrawal in the nucleus accumbens of mice

Urb, Mari; Niinep, Kerly; Matsalu, Terje; Kipper, Karin; Herodes, Koit; Zharkovsky, Alexander; **Timmusk, Tõnis**; Anier, Kaili; Kalda, Anti Addiction Biology 2020 / art. e12720 <https://doi.org/10.1111/adb.12720> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The role of Enhancers in the regulation of brain-derived neurotrophic factor transcription = Enhanseralade roll aju-päritolu neurotroofse teguri transkriptsiooni regulatsioonis

Avarlaid, Annela 2024 https://www.ester.ee/record=b5691778*est <https://digikogu.taltech.ee/et/Item/108d17a6-795d-4bc3-8e2b-95ba9585e849> <https://doi.org/10.23658/taltech.34/2024>

Silmatorkamatu DNA jupp võib kujutada võtit ajuhaiguste leevendamiseks

novaator.err.ee 2023 [Silmatorkamatu DNA jupp võib kujutada võtit ajuhaiguste leevendamiseks](#) Небольшой участок ДНК может стать ключом к лечению заболеваний мозга

Stimulus-Dependent Expression of Bdnf Is Mediated by ATF2, MYT1L, and EGR1 Transcription Factors

Esvald, Eli-Eelika; Moistus, Andra; Lehe, Karin; Avarlaid, Annela; Subina, Anastassia; Kuusemets, Liis; Tuvikene, Jürgen; **Timmusk, Tõnis** Journal of Neuroscience 2025 / art. e0313242025 <https://doi.org/10.1523/JNEUROSCI.0313-24.2025>

Structure and regulation of BDNF gene = BDNF geeni struktuur ja regulatsioon

Aid-Pavlidis, Tamara 2010 http://www.ester.ee/record=b2604919*est

Structure, alternative splicing, and expression of the human and mouse KCNIP gene family

Pruunsild, Priit; Timmusk, Tõnis Genomics 2005 / 5, p. 581-593 <https://pubmed.ncbi.nlm.nih.gov/16112838/>

Studies of the Drosophila basic helix-loop-helix transcription factor Daughterless and its mammalian homologue Transcription factor 4 = Äädikakärbse aluselise heeliks-ling-heeliks transkriptsioonifaktori Daughterless ja tema imetaja homoloogi Transkriptsioonifaktor 4 uuringud

Tamberg, Laura 2023 <https://doi.org/10.23658/taltech.44/2023> <https://digikogu.taltech.ee/et/Item/111b86e4-abe4-47d5-8bca-af7503d4ca24>
https://www.ester.ee/record=b5573303*est

Subcellular localization and transcription regulatory potency of KCNIP/Calsenilin/DREAM/KChIP proteins in cultured primary cortical neurons do not provide support for their role in CRE-dependent gene expression
Pruunsild, Priit; Timmusk, Tõnis Journal of neurochemistry 2012 / p. 29-43

Sumoylation regulates the transcriptional activity of different human NFAT isoforms in neurons

Vihma, Hanna; Timmusk, Tõnis Neuroscience letters 2017 / p. 302-307 : ill <https://doi.org/10.1016/j.neulet.2017.05.074> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Teaduspreemia arstiteaduse alal publikatsioonide tsükli "Närvisüsteemi haiguste molekulaarsetest mehhanismidest"
eest : Tõnis Timmusk

Timmusk, Tõnis Eesti Vabariigi teaduspreemiad 2008 2008 / lk. 98-109 : portr

Tissue-specific and neural activity-regulated expression of human BDNF gene in BAC transgenic mice

Koppel, Indrek; Aid-Pavlidis, Tamara; Jaanson, Kaur; Sepp, Mari; Pruunsild, Priit; Palm, Kaia; Timmusk, Tõnis BMC neuroscience 2009 / p. 68 <https://psycnet.apa.org/record/2009-11273-001>

Transcription factors FOXO3 and TCF4 in Huntington's disease = Transkriptsioonifaktorid FOXO3 ja TCF4 Huntingtoni tõves

Nurm, Kaja 2021 https://www.ester.ee/record=b5469637*est <https://digikogu.taltech.ee/et/Item/07ffb222-9e0b-46ba-ace9-81f821b153a6>
<https://doi.org/10.23658/taltech.55/2021>

Transcriptional and translational regulation of brain-derived neurotrophic factor = Aju päritolu neurotroofse teguri transkriptsiooni ja translatsiooni regulatsioon

Tuvikene, Jürgen 2020 https://www.ester.ee/record=b5392533*est <https://digikogu.taltech.ee/et/Item/4f057c26-5150-4380-a9a9-dab1ce4dc384>

Transcriptional mechanisms of BDNF gene regulation = BDNF geeni avaldumise transkriptsioonilised mehhanismid
Koppel, Indrek 2013 https://www.ester.ee/record=b3046255*est

TTÜ geeniteadlased muugivad haruldast haigust, mida põeb viis inimest miljonist

Tammeorg, Teele; Timmusk, Tõnis Eesti Päevaleht 2016 / lk. 22-23 <https://epl.delfi.ee/artikkel/74154749/ttu-geeniteadlased-muugivad-haruldast-haigust-mida-poeb-viis-inimest-miljonist>

Two novel mammalian nogo receptor homologs differentially expressed in the central and peripheral nervous systems

Lauren, Juha; Airaksinen, Matti S.; Saarma, Mart; Timmusk, Tõnis Molecular and cellular neuroscience 2003 / 3, p. 581-594
<https://www.sciencedirect.com/science/article/pii/S1044743103001994>

2-Deoxyglucose drives plasticity via an adaptive ER stress-ATF4 pathway and elicits stroke recovery and Alzheimer's resilience

Kumar, Amit; Karuppagounder, Saravanan S.; Chen, Yingxin; Corona, Carlo; Kawaguchi, Riki; Chen, Yuyan; Balkaya, Mustafa; Sagdullaev, Botir T.; Wen, Zhexiong; Stuart, Charles; Cho, Sunghye; Ming, Guo-li; Tuvikene, Jürgen; Timmusk, Tõnis; Geschwind, Daniel H.; Ratan, Rajiv R. Neuron 2023 / p. 2831-2846 : ill <https://doi.org/10.1016/j.neuron.2023.06.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Untranslated regions of brain-derived neurotrophic factor (Bdnf) mRNA control its translatability and subcellular localization

Lekk, Ingrid; Cabrera-Cabrera, Florencia; Turconi, Giorgio; Tuvikene, Jürgen; Esvald, Eli-Eelika; Rähni, Annika; Casserly, Laoise; Garton, Daniel R.; Andressoo, Jaan-Olle; Timmusk, Tõnis; Koppel, Indrek The journal of biological chemistry 2023 / art. 102897 <https://doi.org/10.1016/j.jbc.2023.102897> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An upstream enhancer and MEF2 transcription factors fine-tune the regulation of the Bdnf gene in cortical and hippocampal neurons

Avarlaid, Annela; Falkenberg, Kaisa; Lehe, Karin; Mudo, Giuseppa; Belluardo, Natale; Di Liberto, Valentina; Frinchi, Monica; Tuvikene, Jürgen; Timmusk, Tõnis Journal of biological chemistry 2024 / art. 107411, 12 p. : ill <https://doi.org/10.1016/j.jbc.2024.107411> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Usage of bacterial artificial chromosomes for studying BDNF gene regulation in primary cultures of cortical neurons and astrocytes

Jaanson, Kaido; Pärn, Angela; Timmusk, Tõnis Brain-derived neurotrophic factor (BDNF) 2019 / p. 13-25
https://doi.org/10.1007/7657_2018_10 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Valu lülitid, plahvatavad kärbsed ja teadvuse rakud

Maran, Kaur Postimees 2020 / Lk. 2-3 : portr <https://dea.digar.ee/article/ak/2020/10/17/2.1>