

CURRICULUM VITAE
Citizenship: USA

PROFESSIONAL ADDRESS

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Education

Degree	Institution	Date Degree Granted
M.S.	Physical-Engineering Institute, Moscow, Russia	1974
Ph.D. (Molecular Biology) [N. Kiselev]	Institute of Crystallography, Moscow, Russia	1980
Dr.Sci. (Biophysics)	Institute of Physical Chemistry Moscow, Russia	1990
NIH Research Fellow		1997-2000

Positions and Employment

1980-1992	Research Fellow, Institute of Crystallography, Moscow, Russia
1992-1996	Postdoctoral Associate, University of MN
1996-1997	Research Associate, University of MN
1997-2000	NIH Research Fellow, University of MN
2001-2006	Research Associate, University of MN
2006-present	Assistant Professor, University of MN

Other Experience and Professional Memberships

1999-present	Member, International WHO'S WHO of Professionals
1998-present	Member, Association for Research in Otolaryngology
1996-present	Member, Electron Microscopic Society of Minnesota
2014-present	Member, Editorial Board of the Austin Otolaryngology journal
2014-present	Member, Editorial Board for journal of Annals of Otolaryngology and Rhinology
2012-present	Ad-hoc reviewer of International Journal of Pediatric Otorhinolaryngology

Honors and Awards

1996-1997	University of MN Development Fund Award
1997-2000	Individual National Research Service Award 5F32-DC00313-03, NIH/NIDCD
2001-2003	Small research grant award 1 R03 DC04464-01A1 (PI) from NIH/NIDCD
2003-2004	Award from American Hearing Research Foundation

RESEARCH AND SCHOLARSHIP

GRANTS and CONTRACTS**A. Principal Investigator or Program Director**

R03 DC04464-01A1 (V.Tsuprun) 01/01/2001 - 12/31/2003

Funding Institution: NIH/NIDCD

Title of project: Macromolecular Arrays in Extracellular Matrix of Cochlea

Direct cost/year: \$50,000

Funding Institution: American Hearing Research Foundation 01/01/2004 - 12/31/2004

PI: V.Tsuprun

Title of project: “Structure of stereocilia extracellular links and morphology of hair bundles”

Total cost: \$17,500

B. Co-Investigator

1 R41 HD097038 01A1 05/13/2019 – 04/30/2020

PI: P.Schachern

Funding Institution: NIH/NICHD

Title of project: “Targeting bacteria. The innate response of the middle ear to infection, and host-pathogen interactions, using topical and transtympanic applications for treatment of otitis media

Total cost: \$217,605

Role: Co-investigator

Funding Institution: Masonic Cross-Departmental Grant, University of Minnesota

PI: Schleiss, Cureoglu 07/01/2017 – 06/30/2019

Title of project: Histopathologic Effects and Treatment of Cytomegalovirus Infections in Human and Guinea Pig Cochlea.

Direct cost/year: \$100,000

1U24 DC011968-01 09/01/2011 - 08/31/2016

PI: Sebahattin Cureoglu

Funding Institution: NIH/NIDCD

Title of project: “Pathology and pathogenesis of otitis media syndromic ear and Meniere's disease”

Direct cost/year: \$237,371

Role: Co-investigator

PI: Sebahattin Cureoglu 05/01/2015 - 04/30/2016

Funding Institution: U of MN Medical School Innovation Research Grant

Direct cost/year: \$10,000

Title of project: “Design of protein-based vaccine against pneumococcal otitis media”

Role: Co-investigator

Project # (PI): R01 DC006452-01A2 (S.K.Juhn) 12/16/2006-12/15/2015

Source: NIH/NIDCD

Title of project: Effect of Middle ear Inflammation on the Inner Ear.

Direct cost/year: \$224,713

Role: Co-investigator

Project # (PI): 39959/U24DC008559-03S1 (S. Cureoglu)

Source: MEEI- NIH/NIDCD

07/17/2009 - 06/30/2011

Title of project: Otopathology by Light Microscopy and Molecular Technique

Direct cost/year: \$75,000

Role: Co-investigator

% Funded salary support: 10%

Source: Minnesota Medical Foundation

03/31/2010 - 02/28/2011

Role: Co-investigator

PI: S.Cureoglu

Title of project: “Role of DNA methylation in the middle ear due to chronic otitis media”

Direct cost: \$15,000

Selected peer-reviewed publications:

Scopus: **h-index = 19** (of 76 documents considered for the h-index, 18 have been cited at least 16 times, **Total: more than 1200 citations**).

1. **Tsuprun V**, Shibata D, Paparella MM, Cureoglu S. Formations of Host Fibers and Bacteria in Human Temporal Bones With Otitis Media. *Otol Neurotol*. 2021;42(7):e949-e957, 2021.
2. **Tsuprun V**; Keskin N; Schleiss MR; Schachern P; Cureoglu S. Cytomegalovirus-induced pathology in human temporal bones with congenital and acquired infection. *Am J Otolaryngology*. 40(6):102270, 2019.
3. Schachern PA, Kwon G, Briles DE, Ferrieri P, Juhn S, Cureoglu S, Paparella MM; **Tsuprun V**. Neutrophil extracellular traps and fibrin in otitis media: analysis of human and chinchilla temporal bones. *JAMA Otolaryngol Head Neck Surg* 143(10):990-995, 2017.
4. Monsanto RD; Pauna HF; Kwon G; Schachern PA; **Tsuprun V**; Paparella MM; Cureoglu S. A three-dimensional analysis of the endolymph drainage system in Meniere disease. *Laryngoscope*. 127(5):E170-E175, 2017.
5. Kaya S, Schachern PA, **Tsuprun V**, Paparella MM, Cureoglu S. Deterioration of Vestibular Cells in Labyrinthitis. *Ann Otol Rhinol Laryngol* 126(2):89-95, 2017.
6. Monsanto RC, Erdil M, Pauna HF, Kwon G, Schachern PA, **Tsuprun V**, Paparella MM, Cureoglu S. Pathologic Changes of the Peripheral Vestibular System Secondary to Chronic Otitis Media. *Otolaryngol Head Neck Surg* 155(3):494-500, 2016.
7. Kaya S, **Tsuprun V**, Hızlı Ö, Schachern PA, Paparella MM, Cureoglu S. Cochlear changes in serous labyrinthitis associated with silent otitis media: A human temporal bone study. *Am J Otolaryngol* 37(2):83-88, 2016a. PMID: 26954857.
8. Kaya S, **Tsuprun V**, Paparella MM, Cureoglu S. Quantitative Assessment of Cochlear Histopathologic Findings in Patients With Suppurative Labyrinthitis. *JAMA Otolaryngol Head Neck Surg* 142(4):364-9, 2016b. PMID:26987015.
9. Schachern PA, **Tsuprun V**, Ferrieri P, Briles DE, Goetz S, Cureoglu S, Paparella MM, Juhn SK. Pneumococcal proteins PspA and PspC proteins: Potential Vaccine candidates for Otitis media. *Int J Pediatr Otorhinolaryngol* 78(9):1517-21, 2014 doi: 10.1016/j.ijporl.2014.06.024. PMID: PMC4129636
10. Yildirim-Baylan M, Schachern P, **Tsuprun V**, Shiabata D, Paparella MM, Cureoglu S. The pathology of silent otitis media: A predecessor to tympanogenic meningitis in infants. *Int J Pediatr Otorhinolaryngol*. 78(3):451-4, 2014. Doi: 10.1016. PubMed Central PMID: PMC3935507.
11. Schachern PA, **Tsuprun V**, Goetz S, Cureoglu S, Juhn SK, Briles DE, Paparella MM, Ferrieri PA. The viability and virulence of pneumolysin, pneumococcal surface protein A, and pneumolysin/pneumococcal surface protein A mutants of *Streptococcus pneumoniae* in the chinchilla. *JAMA Otolaryngol Head Neck Surg* 139(9):937-43, 2013. PMID: PMC4037925.
12. Schachern PA, **Tsuprun V**, Cureoglu S, Ferrieri P, David E Briles DE, Paparella MM, Juhn SK. Effect of apolactoferrin on experimental pneumococcal otitis media. *Arch Otolaryngol Head Neck Surg* 136(11), 1127-31, 2010. PMID: 21079169. PMID: PMC4022344.

13. Joglekar S, Morita N, Cureoglu S, Schachern PA, Deroe AF, **Tsuprun V**, Paparella, MM, Juhn S. Cochlear pathology in human temporal bones with otitis media. *Acta Otolaryngologica* 130(4):472-476, 2010. PMID: 19895333. PMCID: PMC2925651.
14. Schachern PA, **Tsuprun V**, Cureoglu S, Wang B, Apicella MA, Paparella MM, Juhn SK. Effect of lipooligosaccharide mutations of *Haemophilus influenzae* on the middle and inner ears. *Int J Pediatr Otorhinolaryngol* 73(12):1757-60, 2009. PMID: 19853312. PMCID: PMC2796450.
15. **Tsuprun V**, Cureoglu S, Schachern, PA, Ferrieri P, Juhn SK. Role of Pneumococcal Proteins in Sensorineural Hearing Loss Due to Otitis Media *Otol & Neurotol* 29(8):1056-1060, 2008.
16. Schachern PA, **Tsuprun V**, Cureoglu S, Ferrieri P, Briles DE, Paparella M, Juhn S. Virulence of the pneumococcal proteins on the inner ear. *Arch Otolaryngol Head Neck Surg* 135(7):653-657, 2009. PMID: 19620586.
17. Schachern PA, **Tsuprun V**, Cureoglu S, Ferrieri P, Briles DE, Paparella MM, Juhn S. The round window membrane in otitis media. Effect of pneumococcal proteins. *Archives Otolaryngol Head Neck Surg* 134(6):658-662, 2008. PMID: 18559736.
18. Karya S, Schachern P, Cureoglu S, **Tsuprun V**, Okano M, Kazunori N, Juhn S. Up-regulation of macrophage inhibitory factor induced by endotoxin in experimental otitis media with effusion in mice. *Acta Oto-Laryngol* 128(7):750-755, 2008. PMID: 18568516.
19. Tsuchiya K, Toyama K, **Tsuprun V**, Hamajima Y; Kim Y, Ondrey FG, Lin J. Pneumococcal peptidoglycan-polysaccharides induce the expression of interleukin-8 in airway epithelial cells by way of nuclear factor-kappaB, nuclear factor interleukin-6, or activation protein-1 dependent mechanisms. *Laryngoscope* 117:86-91, 2007. PMCID: PMC2847848.
20. Schachern PA, Cureoglu S, **Tsuprun V**, Paparella MM, Whitley C. Age-related functional and histopathological changes of the ear in the MPS I mouse. *Int J Pediatr Otolaryngol* 71:197-203, 2007. PMCID: PMC1940035.
21. Newman D, Abuladze N, Scholz K, Dekant W, **Tsuprun V**, Ryazantsev S, Bondar G, Sassani P, Kurtz I, Pushkin A. Specificity of aminoacylase III-mediated deacetylation of mercapturic acids. *Drug Metab Dispos* 35:43-50, 2007.
22. Cureoglu S, Schachern PA, Fertilo A, Rinaldo A, **Tsuprun V**, Paparella MM. Otosclerosis: etiopathogenesis and histopathology. *Am J Otolaryngol* 27:334-340, 2006.
23. Cureoglu S, Schachern PA, Rinaldo A, **Tsuprun V**, Ferlito A, Paparella MM. Round window membrane and labyrinthine pathological changes: an overview. *Acta Otolaryngol* 125:9-15, 2005.
24. Pushkin A, Carpenito G, Abuladze N, Newman D, **Tsuprun V**, Ryazantsev S, Srilakshmi Motemoturu S, Sassani P, Solovieva N, Dukkipat R, Kurtz I. Structural characterization, tissue distribution, and functional expression of murine aminoacylase III. *Am J Physiol Cell Physiol* 286:C848-856, 2004.
25. **Tsuprun V**, Goodyear RJ, Richardson GP. The structure of tip links and kinocilial links in avian sensory hair bundles. *Biophys J* 80:4106-4112, 2004.
Citations: 36
26. **Tsuprun V**, Schachern PA, Cureoglu S, Paparella MM. Structure of the stereocilia side links and morphology of auditory hair bundles in relation to noise exposure in the chinchilla. *J Neurocytol* 32:1117-1128, 2003.
27. **Tsuprun V**, Santi P. Structure of outer hair cell stereocilia side and attachment links in the chinchilla cochlea. *J Histochem Cytochem* 50:493-502, 2002.
28. **Tsuprun V**, Santi P. Proteoglycan arrays in the cochlear basement membranes. *Hear Res* 157:65-76, 2001.
29. Lin J, **Tsuprun V**, Kawano H, Paparella M, Zhang Z, Anway R, Ho SB. Characterization of mucins in human middle ear and Eustachian tube. *Am J Physiol Lung Cell Mol Physiol* 280:L1157-1167, 2000.
Citations: 51
30. Pushkin AV, **Tsuprun V**, Abuladze NK, Newman D, Kurtz I. Oligomeric structure of bAE3 protein. *IUBMB Life* 50:397-401, 2000.
31. **Tsuprun V** and Santi P. Helical structure of outer hair cell stereocilia tip links in the chinchilla cochlea. *JARO* 01:195-210, 2000. PMCID: PMC2504542.
32. **Tsuprun V** and Santi P. Ultrastructure and immunohistochemical identification of the extracellular matrix of the chinchilla cochlea. *Hear Res* 129:35-49, 1999.

33. **Tsuprun V** and Santi P. Structure of outer hair cell stereocilia links in the chinchilla. *J Neurocytol* 27:517-528, 1998.
34. **Tsuprun V** and Santi P. Ultrastructural organization of proteoglycans and fibrillar matrix of the tectorial membrane. *Hear Res* 110:107-118, 1997.
35. **Tsuprun V** and Santi P. Crystalline arrays of proteoglycan and collagen in the tectorial membrane. *Matrix Biol* 15:31-38, 1996.
36. **Tsuprun V**, Rajagopal B, Anderson D. Electron microscopy of *B. subtilis* GroESL chaperonin and interaction with bacteriophage ϕ 29 head-tail connector. *J Structr Biol* 115:258-266, 1995.
37. **Tsuprun V**, Anderson D, Egelman EH. The bacteriophage ϕ 29 head-tail connector shows 13-fold symmetry in hexagonal packed arrays and single particles. *Biophys J* 66:2139-2150, 1994. PMID: PMC1275939.
38. Shubin V, **Tsuprun V**, Karapetyan NV. Trimeric forms of the photosystem I. *FEBS Lett* 334:79-82, 1993.
Citations: 53
39. Myasoedova KN, **Tsuprun V**. Cytochrome P-450: hexameric structure. *FEBS Lett* 325:251-254, 1993.
40. Syomin BK, Kandror KV, **Tsuprun V**. Presence of the gypsy (MDG4) retrotransposon in extracellular virus-like particles. *FEBS Lett* 323: 285-288, 1993.
41. Mikhailov AM, **Tsuprun V**, Vainstein BK. Isolation, crystallization and preliminary X-ray investigation of uridine phosphorylase from *E. coli* K-12. *Biochim Int* 26:607-615, 1992.
42. Kandror KV, **Tsuprun V**, Stepanov AS. The main adenosine triphosphate-binding component of amphibios oocyte is ferritin. *Mol Reprod Develop* 31:48-54, 1992.
43. **Tsuprun V**, Boekema EJ, Pushkin AV, Tagunova IV. Electron microscopy and image analysis of the GroEL-like protein and its complexes with glutamine synthase from pea leaves. *Biochim Biophys Acta* 1099:67-73, 1992.
44. Mikhailov AM, Smirnova EA, **Tsuprun V**, Tagunova IV, Vainstein BK, Linkova EV, Komissarov AA, Siprashvilli ZZ, Mironov AS. Isolation, crystallization in the macrogravitation field, preliminary X-ray investigation of uridine phosphorylase from *Escherichia coli* K-12. *Biochem Int* 26:607-615, 1992.
45. **Tsuprun V**, Boekema EJ, Pushkin AV. Electron microscopy and image analysis of GroEL-like protein and its complexes with glutamine synthase. *Bioch Biophys Acta* 1099:69-72, 1992.
46. **Tsuprun V**, Boekema EJ, Pushkin AV, Samsonidze T.G. Electron microscopy of the complexes of Rubisco and Rubisco subunit binding protein. *FEBS Lett* 289:205-209, 1991.
47. Kost OA, Lamzina NA, Shrafutdinov, **Tsuprun V**, Kazanskaia NF. Physico-chemical characteristics of angiotensin-converting enzyme from the bovine lung. *Biokhimiia* 55:974-981, 1990.
48. Kiselev NA, Sherman M, **Tsuprun V**. Negative staining of proteins. *Electr Micrs Rev* 31:43-72, 1990.
49. **Tsuprun V**, Mesyanzhinova IV, Orlova EV, Kiselev NA. Structure of ATP-synthase studied by electron microscopy and image processing. *FEBS Lett* 244:279-282, 1989.
50. Sukhodolets MV, Nagradova KN, **Tsuprun V**. Association of rabbit muscle glyceraldehyde-3-phosphate dehydrogenase and 3-phosphoglycerate kinase. *FEBS Lett* 238:161-166, 1988.
51. **Tsuprun V**, Myasoedova KN, Berndt P, Sograf ON, Orlova EV, Chernyak VYa, Archakov AI, Skulachev VP. Quaternary structure of the liver microsomal cytochrome P-450. *FEBS Lett* 205(1):35-40, 1986. PMID:3743769.
52. Pushkin A, **Tsuprun V**, Solovjeva N, Shubin V, EvstigneevaZ, Kretovich W. High molecular weight pea leaf protein similar to the groE protein of *Escherichia coli*. *Biochim Biophys Acta* 704(2): 379-384, 1982.

Chapters in Books

Tsuprun V and Santi P. Cochlear microanatomy and ultrastructure. In: *Physiology of the ear* (Fahn AF and Santos-Sacchi J, Eds). Singular, pp. 256-283, 2001.

Editorships/Journal Reviewer Experience

1. Member, Editorial Board of the *Austin Otolaryngology journal*
2. Member, Editorial Board of *Member, Editorial Board of Otolaryngology and Rhinology*:
3. Ad-hoc reviewer of journals: *International Journal of Pediatric Otorhinolaryngology*, *Pediatric research*, and others.