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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Complete if Known	
Application Number	18/852,565
Filing Date	09-30-2024
First Named Inventor	KOSS; Kyle Michael
Art Unit	OPAP
Examiner Name	CENTRAL, DOCKET
Attorney Docket Number	NWEST-40734.252

U. S. PATENT DOCUMENTS

Examiner Initials*		Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		001	US-8044022	10-25-2011	KOLODKA; Tadeusz et al.	
		002	US-20080145934	06-19-2008	HARRIS; Ian Ross et al.	
		003	US-20140031526	01-30-2014	SHOSEYOV; Oded et al.	
		004	US-20190060516	02-28-2019	MARTIN; Russell et al.	

FOREIGN PATENT DOCUMENTS

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		001	WO-2013163766-A1	11-07-2013	CANGENE CORP [CA]		☐

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		001	ADOCHITEI A., et al., "Rapid Characterization of Peptide Secondary Structure by FT-IR Spectroscopy", Revue Roumaine de Chimie, Vol. 56, No. 8, 2011, Pages 783-791.	☐
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		003	BARKER A.J., et al., "New Roles for Astrocytes in Developing Synaptic Circuits", Communicative & Integrative Biology, Vol. 1, No. 2, 2008, Pages 207-211, 6 Pages.	☐
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		010	BRAUN Z., et al., "Activation of Paraplegic Patients by Functional Electrical Stimulation: Training and Biomechanical Evaluation", Scandinavian Journal of Rehabilitation Medicine Supplement, Vol. 12, 1985, Pages 93-101.	☐
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		019	CHENG C., et al., "Development of Surrogate Spinal Cords for the Evaluation of Electrode Arrays Used in Intraspinal Implants", IEEE Transactions on Biomedical Engineering, Vol. 60, No. 6, June 2013, No. 60, Pages 1667-1676, Retrieved from https://doi.org/10.1109/TBME.2013.2241061.	☐
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		023	CLARKE L.E., et al., "Emerging Roles of Astrocytes in Neural Circuit Development", Nature Reviews, Neuroscience, Vol. 14, May 2013, Pages 311-321, Retrieved from https://doi.org/10.1038/nrn3484.	☐
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		025	DAVIS J.A., et al., "Preliminary Performance of a Surgically Implanted Neuroprosthesis for Standing and Transfers--Where Do We Stand?", Journal of Rehabilitation Research and Development, Vol. 38, November/December 2001, Pages 609-617.	☐
		026	DAWES C.J., "Biological Techniques for Transmission and Scanning Electron Microscopy", [2d ed.], Burlington, Vt. : Ladd Research Industries, 1979, Retrieved from https://trove.nla.gov.au/version/30356824 accessed on April 21, 2025, 3 Pages.	☐

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		036	GIBBS W S., et al., "Identification of dual mechanisms mediating 5-hydroxytryptamine receptor 1F-induced mitochondrial biogenesis", American Journal of Physiology-Renal Physiology, Vol. 314, 2018, pp. F260-F268.	☐
		037	GREENFIELD N.J., "Using Circular Dichroism Spectra to Estimate Protein Secondary Structure," Nature Protocols, 2006, Vol. 1, No. 6, pp. 2876-2890 (29 Pages).	☐
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		046	International Search Report and Written Opinion for International Application No. PCT/US2023/065192, mailed 22 September 2023, 15 Pages.	☐
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		056	KITAORI A., et al., "Emergent Electromagnetic Induction Beyond Room Temperature", Proceedings of the National Academy of Sciences of the United States of America, Vol. 118, No. 33, e2105422118, 2021, pp. 1-6.	☐
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First Named Inventor	KOSS; Kyle Michael
Art Unit	OPAP
Examiner Name	CENTRAL, DOCKET
Attorney Docket Number	NWEST-40734.252

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Examiner Initials*		Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		143	VASILE C., et al., "Chitosan/Hyaluronic Acid Polyelectrolyte Complex Hydrogels in the Management of Burn Wounds", Revista Medico-chirurgicală a Societății De Medici I Naturalisti Din Lasi, 2013, Vol. 117, No. 2, pp. 565-571.	☐
		144	VIEIRA-PIRES R.S., et al., "310 Helices in Channels and Other Membrane Proteins", Journal of General Physiology, 2010, Vol. 136, pp. 585-592, Retrieved From https://doi.org/10.1085/jgp.201010508.	☐
		145	VODOVNIK L., et al., "Functional Electrical Stimulation for Control of Locomotor Systems", Crit Rev Bioeng, September 1981, Vol. 6, pp. 63-131(38 pages).	☐
		146	VORBERG I., et al., "Deletion of Beta-Strand and Aplha-Helix Secondary Structure in Normal Prion Protein Inhibits Formation of Its Protease-Resistant Isoform", Journal of Virology, 2001, Vol. 75, No. 21, pp. 10024-10032. Retrieved From https://doi.org/10.1128/JVI.75.21.10024-10032.2001.	☐
		147	WALKER J.S., "Anti-Inflammatory Effects of Opioids", Advances in Experimental Medicine and Biology, 2003, Vol. 521, pp. 148-160.	☐
		148	WALSH D.M., et al., "Amyloid Beta-Protein Fibrillogenesis Structure and Biological Activity of Protofibrillar Intermediates", Journal of Biological Chemistry, Vol. 274, No. 36, 1999, pp. 25945-25952, Retrieved From https://doi.org/10.1074/jbc.274.36.25945.	☐
		149	WATERS D., et al., "Experimental Correction of Footdrop by Electrical Stimulation of the Peroneal Nerve", Journal of Bone and Joint Surgery, 1975, Vol. 57, pp. 1047-1054 (7 pages).	☐
		150	WATERS R.L., et al., "Functional Electrical Stimulation of the Peroneal Nerve for Hemiplegia", Long-term Clinical Follow-up ,Journal of Bone and Joint Surgery, June 1985, Vol. 67, pp. 792-793.	☐
		151	WOLLER S.A., et al., "Opioid Administration Following Spinal Cord Injury: Implications for Pain and Locomotor Recovery",Experimental Neurology, March 15, 2013, Vol. 247, pp. 328-341, Retrieved From https://doi.org/10.1016/j.expneurol.2013.03.008.	☐

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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet | 19 | of | 22

Complete if Known	
Application Number	18/852,565
Filing Date	09-30-2024
First Named Inventor	KOSS; Kyle Michael
Art Unit	OPAP
Examiner Name	CENTRAL, DOCKET
Attorney Docket Number	NWEST-40734.252

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		152	WU J-C., et al., Controlled Growth of Aligned Alpha-Helical-polypeptide Brushes for Tunable Electrical Conductivity", Applied Physics Letters, 2011, Vol. 98, 133304, 4 pages, Retrieved Form https://doi.org/10.1063/1.3560452.	☐
		153	XIONG, R., et al., "Function Of Cancer Cell-Derived Extracellular Matrix in Tumor Progression", Journal of Cancer Metastasis and Treatment, September 18, 2016, Vol. 2, pp. 357-364, Retrieved From https://doi.org/10.20517/2394-4722.2016.08.	☐
		154	XU X-M., et al., "A Peptide With Three Hyaluronan Binding Motifs Inhibits Tumor Growth and Induces Apoptosis", Cancer Research, September 15, 2003, Vol. 63, No. 18, pp. 5685-5690 (7 pages), Abstract, Page 5685, Col 2, Para 3.	☐
		155	YAMADA N., et al., "Regulation of Beta-Sheet Structures Within Amyloid-Like Beta-Sheet Assemblage from Tripeptide Derivatives", Journal of the American Chemical Society, 1998, Vol. 120, No. 47, pp. 12192-12199, Retrieved From https://doi.org/10.1021/ja981363q.	☐
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		157	YANG B., et al., "Identification of Two Hyaluronan-Binding Domains in the Hyaluronan Receptor RHAMM", The Journal of Biological Chemistry, 1993, Vol. 268, No. 12, pp. 8617-8623.	☐
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		159	YOKOUCHI T., "Emergent Electromagnetic Induction in a Helical-Spin Magnet", Nature, Vol. 586, October 8, 2020, pp. 232-236 (14 pages), Retrieved from https://doi.org/10.1038/s41586-020-2775-x.	☐

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		160	ZALESKI et al., "Hyaluronic Acid Binding Peptides Prevent Experimental Staphylococcal Wound Infection", Antimicrob Agents Chemother, November, 2006, Vol. 50, No. 11, pp. 3856-3860. Retrieved From https://doi.org/10.1128/AAC.00082-06.	☐
		161	ZHANG S., "Fabrication of Novel Biomaterials Through Molecular Self-assembly," Nature Biotechnology, October 2003, Vol. 21, No. 10, pp. 1171 -1178.	☐
		162	ZHU H-L., et al., "Quantitative Characterization of Heparin Binding to Tau Protein", The Journal of Biological Chemistry, February 5, 2010, Vol. 285, No. 6, pp. 3592-3599, Retrieved From https://doi.org/10.1074/jbc.M109.035691.	☐
		163	ZIEBELL M.R., et al., "Interactions of Peptide Mimics of Hyaluronic Acid With the Receptor for Hyaluronan Mediated Motility (RHAMM)", Journal of Computer-Aided Molecular Design, 2004, Vol. 18, pp. 597-614, Retrieved From https://doi.org/10.1007/s10822-004-5433-8.	☐

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Attorney Docket Number	NWEST-40734.252

IDS Size Fee Statement

Please see 37 CFR 1.98 to make the appropriate selection. For the information disclosure statement (IDS) submitted herewith, the applicant or patent owner certifies:

☐ No IDS size fee is required under 37 CFR 1.17(v) at this time.

☐ The IDS is accompanied by the IDS size fee under 1.17(v)(1).

☒ The IDS is accompanied by the IDS size fee under 1.17(v)(2).

☐ The IDS is accompanied by the IDS size fee under 1.17(v)(3).

DEPOSIT ACCOUNT

The Director is authorized to charge the fee indicated above in the amount of $ _____ for the IDS submitted herewith

to deposit account _____ .

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CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e) (2).

☐ See attached certification statement.

☒ A certification statement is not submitted herewith.

FEE

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

COPIES

☐ An identification of an earlier application pursuant to 37 CFR 1.98 (d) (1) is attached.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Rikki A. Hullinger/	Date (YYYY-MM-DD)	2025-08-20
Name/Print	Rikki A. Hullinger	Registration Number	77,414