



**2025 Keynote Speaker**  
Development of The Dentition: The Good, Bad and Ugly  
Presented by **Tim Wright, DDS, MS**  
Professor | Adams School of Dentistry, University of North Carolina at Chapel Hill  
Editor in Chief | Journal of the American Dental Association

The Wright earned his DDS degree from New York University and completed his Pediatric Dentistry training and postdoctoral fellowship at the University of Alabama at Birmingham. He currently is an Associate Professor in the Department of Pediatric Dentistry and Clinical Public Health at the same school of dentistry at the University of North Carolina at Chapel Hill, where he has worked as Pediatric Hospital Dentistry Chief and Department of Endodontics and Oral Surgery. He is a member of the American Board of Pediatric Dentistry and the American Academy of Pediatric Dentistry.

The Advancement of Science and a Past President of the American Association of Pediatric Dentists. He is currently the Editor in Chief of the Journal of Pediatric Dentistry.

He is a member of the American Board of Pediatric Dentistry and the American Academy of Pediatric Dentistry.

# 12th Annual Research Symposium Program

**SOUTH JORDAN CAMPUS**

Wednesday, February 18, 2026

**ROSEMAN UNIVERSITY**  
OF HEALTH SCIENCES

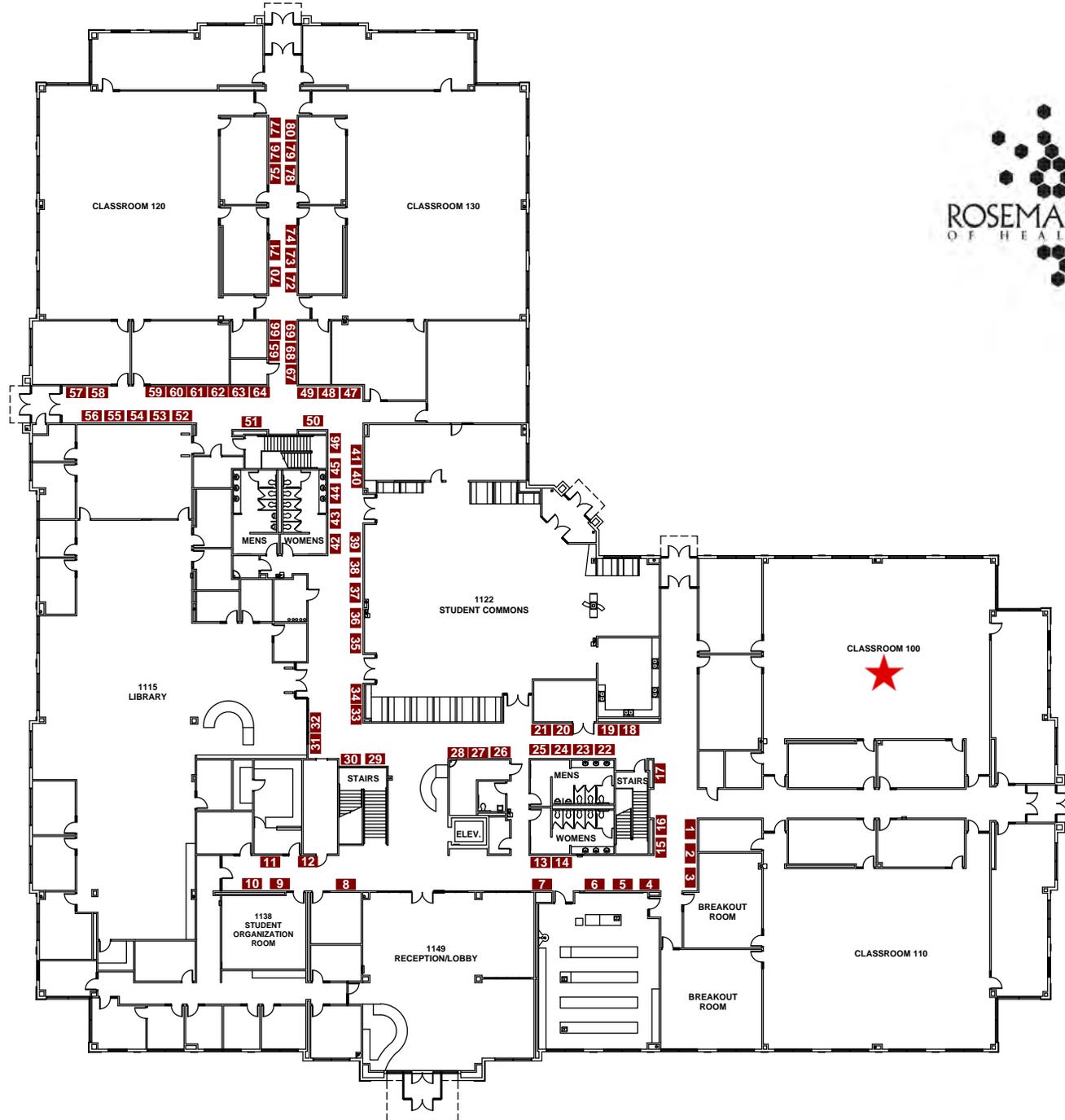
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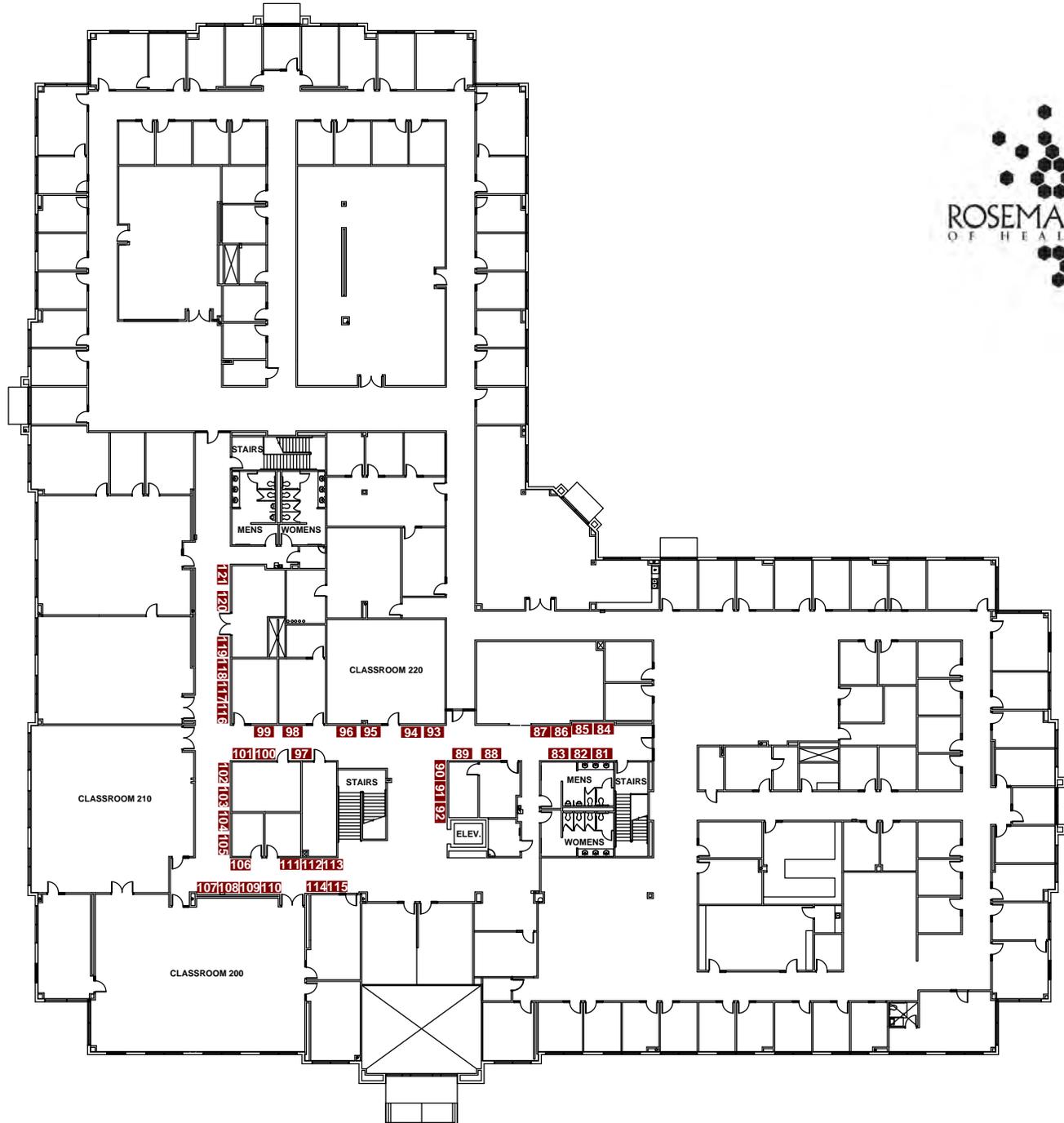


# RESEARCH SYMPOSIUM POSTER PRESENTATION MAP

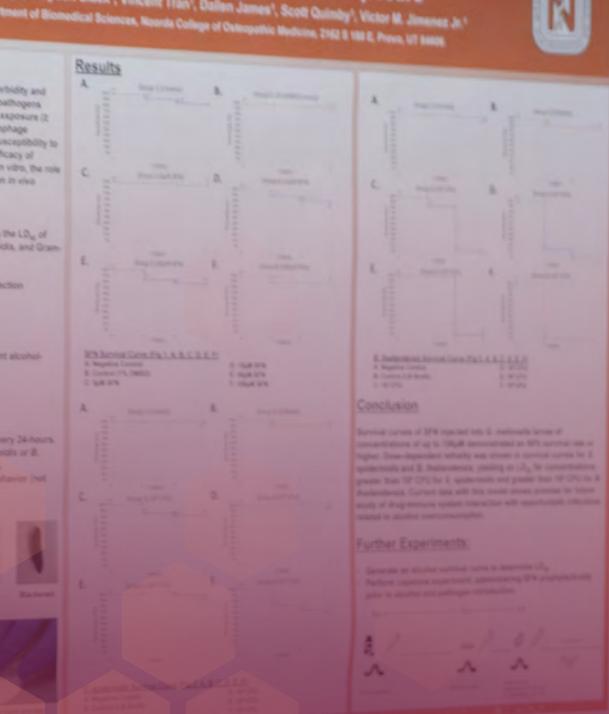


**LEVEL 1**  
POSTERS 1-80

# RESEARCH SYMPOSIUM POSTER PRESENTATION MAP



**LEVEL 2**  
POSTERS 81-121



# South Jordan Campus Agenda

Wednesday, February 18, 2026 | 3pm (local time)

2:30-3pm	Registration and Presenter Check-In
3-4pm	Poster Session
4-5pm	Keynote Speaker - Melodie L. Weller, PhD - <i>Classroom 100</i>
5-6pm	Podium Presentations - <i>Classroom 100</i>
6-6:15pm	Break (Meal Served) - <i>P1-1 Breakroom</i>
6:15-6:30pm	Awards and Closing Remarks- <i>Classroom 100</i>

# 2026 Keynote Speaker



**Melodie L. Weller, PhD**

Spencer Fox Eccles School of Medicine,  
Adjunct - Pathology

Dr. Melodie Weller is a research scientist and educator specializing in virology, oral-systemic disease, and pathogen discovery. Her interdisciplinary research program focuses on understanding how viral, bacterial, and fungal pathogens contribute to chronic inflammatory diseases, with a particular emphasis on the oral cavity as a reservoir and indicator of systemic disease.

Her lab has pioneered studies identifying novel variants of Hepatitis Delta Virus (HDV) in salivary gland tissues of patients with Sjogren's disease, independent of Hepatitis B Virus co-infection. This work extends to characterizing satellite RNA viruses within the Kolmioviridae family and exploring their potential plant origins and cross-kingdom transmission. She also leads investigations into the oral microbiome and its impact on autoimmune disease, integrating large-scale epidemiologic data with molecular approaches.

In the clinical and teaching arenas, Dr. Weller is committed to advancing diagnostic tools for oral disease, training the next generation of scientists, and promoting translational research that bridges dentistry, immunology, and infectious disease. She actively mentors undergraduate and graduate students and collaborates across disciplines to uncover environmental and microbial contributors to systemic autoimmune conditions.

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# Podium Presentations

**“Optimization of a KCC2 Small Molecule Agonist and the Development of an In-Silico Model of intermolecular dynamics for the Rational Design of Therapeutics Against Opioid Use disorder”**

Presented by: William Ho-Noorda  
*College of Osteopathic Medicine, Utah, USA*



**“Linking Subgingival Bacterial Levels to Gingival Gene-Expression Patterns to Prioritize Host-Response Pathways in Periodontitis”**

Presented by: Josten Daneshmayeh  
*College of Dental Medicine, Roseman University, Utah, USA*



**In Silico Biomarker Discovery for CRISPR-Cas-Based Detection of Latent Tuberculosis**

Presented by: Parv Kale  
*Waterford High School, Sandy, Utah*

# Poster Session

Poster #	Title	Presenter
1	Data-Driven Orthodontic Risk Stratification Using Clinical and Biologic Parameters	Abigail Warner
2	Host-Microbe Crosstalk and Molecular Pathways in Peri-Implantitis: Unraveling the Immune-Metabolic Nexus	Akash Patel
3	Testing glucose-mediated inhibition of vitamin C absorption in ARPE-19 cells	Alden Enlow
4	Neonatal Sepsis: Empiric Treatment and Monitoring of Gentamicin Troughs in the NICU	Aleese Palfreyman
5	The Impact of E-cigarettes on Oral Health: A Systematic Review of Risks and Emerging Evidence	Alexander Girgis
6	Objective Characterization of State-Dependent Cutaneous Neurovascular Aggregates (Chapman Points) Induced by Experimental Visceral Stimulation	Alexis Kingery
7	Genomic Insights for Personalized Risk Assessment and Precision Planning in Oral Surgery	Allahe Majidi
8	Cytotoxic and Antimicrobial Effects of Plant-Derived Compounds Used in Traditional Chinese Medicine	Amanda Ly
9	Effects of Pranayama on Post-Stroke Complications: A Narrative Literature Review	Anagha Sanne
10	Development and Validation of a Stability Indicating HPLC Method for Tirzepatide	Andrea Bui
11	Periocular Cutaneous Changes in Chronic Topical Glaucoma Therapy	Anna Liles
12	Periocular Photodamage: Dermatologic Conditions with Ocular Implications	Anna Liles
13	Machine Learning Prediction of Dental Implant Success and Marginal Bone Loss: Toward Data-Driven Clinical Decision Support	Arzu Manochchri
14	The Impact of Resveratrol in Substance Use Disorders: A Narrative Review	Ashlyn Hughes
15	Osteopathic Manipulative Treatment as an Adjunctive Approach to Improve Pelvic Perfusion and Fertility-Related Physiologic Markers	Ashton Dodd
16	Advancing Oral Cancer Screening Through Deep Learning Models: A Systematic Review	Austin Miner
17	Impact of Interpreter Services Training On Dental Students' Communication Confidence	Austin Walker
18	Investigating the Antagonist Properties of Naloxone in Synthetic Isotonitazene and Brorphine in Brain Microglial Cells	Ayanda Mkhize
19	From Image to Chairside Decision-Making: Unsupervised Morphological Clustering of Carious Lesions Aligned with Clinical Severity	Bailey Axelrad
20	The Effect of Virtual Reality on Dental Anxiety and Pain	Bayler Gunnell
21	Immunomodulatory Effects of Tianeptine In Vivo using Galleria mellonella Larvae Model	Ben Laughter

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22	The Impact of Physical Activity and Diet on the Potassium-Chloride Cotransporter 2 in the Central Nervous System: A Literature Review	Benjamin Latey
23	Comparison of Anti-inflammatory effects of Berberine and Chlorhexidine Mouthwashes by Assessing Salivary Biomarkers in Chronic Periodontitis: A Randomized Clinical Trial.	Bhavana Sujanamulk
24	Gut Microbiome Modulates PD-1 Inhibitor Efficacy in Cancer Therapy	Bryan Jimenez
25	Integrative Network and Docking Analyses Reveal Key Proteins Drug Targets in Enterococcus faecalis Virulence	Calvin Bennion
26	Machine Learning Assisted Optimization of Psilocin for the Rational Design of Therapeutics Against Neuroinflammation	Calvin Martin
27	Development of a Novel Balance Assessment to Evaluate and Improve Balance	Carlos Phouthavongsay
28	Decoding Genetic and Network Signatures of Susceptibility to Orthodontic Root Resorption: Toward Predictive and Personalized Orthodontics	Casey Morishige
29	Imaging in Acute Neurovascular Emergencies: Optimizing Outcomes in Large Vessel Occlusion Stroke	Chandu Goli
30	Developmental and psychosocial determinants of ego-syntonic versus ego-dystonic experience in pediatric trichotillomania	Chelsea Chang
31	Emotion Regulation Deficits as a Shared Mechanism Underlying Overlapping Psychological and Physiological Features of Trichotillomania and Sleep Terrors in Children	Chelsea Chang
32	Behavioral and Cognitive Techniques in Pediatric Dental Anxiety Management	Connor Lemmon
33	Digital Platforms and Orthodontic Decision-Making	Corban Ward
34	Osteoimmune Target Prioritization for Accelerated Orthodontics: Public Transcriptome Reanalysis Identifies an ATF6-TNF $\alpha$ Macrophage Module and State-Transition Markers	Dana Faghieh
35	Magnesium Intake and Periodontal Health in Adults	Dana Faghieh
36	A Mushroom-Derived Antioxidant as a Potential Chemopreventive Agent in Pancreatic Cancer	Davian Caraballo
37	Mapping the Unexpected: Aberrant Celiac Trunk Origination With Atypical Splenic Artery Bifurcation	David Delano
38	Laxogenin, a plant-based natural steroidal compound, prevents colon cancer growth	Desiree Gonzalez
39	A Randomized, Sham-Controlled Trial Evaluating the Efficacy of Osteopathic Manipulative Treatment (OMT) for Plantar Fasciitis with Delayed Access to Biologic Therapies	Devin Mckee

# Poster Session

Poster #	Title	Presenter
40	Inadvertent Intra-Arterial Cannulation in a Resource Limited Environment	Dustin Edmonds
41	Efficacy of Very Low Carbohydrate Diet on Glucose Dysregulation in Chronic Migraine	Elizabeth Amera
42	Hunter Syndrome - Caretaker Needs Assessment	Elizabeth Attarian
43	What We Know- and Still Need to Learn- About Physical and Neuromodulatory Approaches to Prevent Postoperative Ileus: A Narrative Review	Erica Tutuwan-Buckhout
44	Exploring Osteopathic Manipulative Treatment as an Adjunct for Postoperative Pain Management in Pediatric Patients	Erica Tutuwan-Buckhout
45	Epimedin A, a plant-based flavonoid, prevents glioblastoma growth and invasion.	Erick Zecena
46	Automated AI-Based Classification of Malocclusion from Panoramic Radiographs: Orthodontic Screening	Gabriel Eisenhuth
47	AI Applications in Assessing Risk for Periodontal Disease: A Systematic review	Grant Korte
48	Modulation of High-Glucose-Induced Endothelial Injury by 7-Hydroxyflavone	Gursimran Kaur
49	Modulating the placebo effect using an fNIRS-based neurofeedback training program: a literature review	Hayden McAfee
50	Development of an HPLC Analytical Method for Semaglutide	Huan Tran
51	Ethanol Acutely Attenuates N-Methyl-D-Aspartate (NMDA) Induced Calcium Signaling Hypersensitization in Mouse Ventral Tegmental Area	Isaac Wilcox
52	Could Dietary Zinc Protect Your Gums? Insights from Non-Diabetic Adults	Jacob Kelly
53	Evaluation of Sphenopalatine Ganglion OMT Release and Anesthetic Block in Refractory Migraine	Jacob Warner-Palacio
54	Appropriateness of Root Canal Therapy Referrals in Medicaid-Insured Pediatric Patients	Jacob Marx
55	Use of KCC2 DNA plasmid transfection to modulate chloride homeostasis in cultured dopamine-neuron-like cells	Jacqueline Farolan
56	The Impact of the Method of Loci as a Forgetting Curve Intervention	James Pike
57	Computational Network Biology of Host Microbe Crosstalk in Persistent Endodontic Inflammation	Janaki O'Callaghan
58	Efficacy of the AI-powered research platform Elicit in generating systematic literature reviews	Jasmine Pannu
59	Detoxing from Fentanyl: The Role of Short-Acting Opioid Agonists	Jason Major
60	Investigating Biomarkers of Anxiety Amelioration with Heterodyned Whole-Body Vibration using EEG	Jaxson Bowen

# Poster Session

Poster #	Title	Presenter
61	From Microbiome Discovery to Clinical Screening: Replicated Oral Microbial Signatures in Early Childhood Caries	Jazmine Gill
62	Relationships Between Clinical Symptom Scales and EEG Biomarkers in OUD Patients	Jess DeLange
63	Plant derived steroid, 5a-hydroxy-laxogenin, prevents EGF-induced non-small cell lung cancer cell growth	John Mitchell Donadieu
64	The Effect of Digital Dentistry on Clinical Practice and Patient Outcomes	Jonathan Blackwell
65	Minimizing Discomfort from Dental Handpieces	Jorgen Lowry
66	Testing the Therapeutic Potential of Sulforaphane Treatment Following Alcohol Exposure in Galleria mellonella Larvae	Joshua Tkachenko
67	Linking Subgingival Bacterial Levels to Gingival Gene-Expression Patterns to Prioritize Host-Response Pathways in Periodontitis	Josten Daneshmayeh
68	Assessing the Safety and Oversight Challenges of DIY Orthodontic Aligners	Kaden Coombs
69	It's a Conspiracy! Misinformation on social media and the role of the pharmacist as the medication expert.	Kaitlyn Hinton
70	Resveratrol as an attenuator of anti-nociceptive tolerance in opioid therapy	Keara LeRoy
71	Implementing the Meno10 Screener: A Quality Improvement Initiative	Kelley Keenan
72	The Immunomodulatory Effects of Salvinorin A in RAW 264.7 Macrophages and Microglial cells	Kennedy Scheele
73	Electronic Cigarette Use and Clinically Assessed Oral Mucosal Lesions and Alterations in Adults: A Systematic Review	Kevin Zhang
74	Active lifestyles and periodontal health	Kristi Torp
75	Pyoderma Gangrenosum in Rural Guatemala: A Case Study	Lauren Draper
76	Rural Medicine in America: The People and Physicians of the Past, Present, and Future	Lauren Draper
77	Pregnancy Following Renal Autotransplant as Definitive Treatment for Nutcracker Syndrome with Complex History: A Case Study	Lauren Draper
78	Evaluating the Association between Lifestyle Inflammation Score and Periodontitis in U.S. Adult	Lea Haverbeck Simon
79	Vaccination as a Modulator of Arrhythmic Risk: Atrial Fibrillation in Long-Covid Patients	Lorissa Thorpe
80	A Systematic Review of Cadaveric A1 Segment Morphometry Studies	Marlena Muszynska
81	A Systematic Review of Cadaveric P1 Segment Morphometry Studies	Marlena Muszynska
82	Review of Methodological Practices in Cadaveric Cerebral Arterial Morphometry: Variability in Contemporary Protocols (2015-2025)	Marlena Muszynska
83	Osteopathic Techniques Modalities and Treatments: Comprehensive Literature Review	Marsha Chevalier

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84	Investigating the Acute Metabolic Effects of Ultrasound-Induced Lipolysis: A Mechanistic Pilot Study	Matthew Shaw
85	Preparing for practice - a review of strategies to assess APPE readiness	Matthew Parker
86	Peritumoral Magnetic Particle Imaging Potentially Enables Quantitative In Vivo Sentinel Lymph Node Mapping Beyond Optical Dye Techniques	Matthew Thompson
87	Periodontal Implications of Prolonged Fixed Orthodontic Retainers	Megan Nelson
88	Epimedin A prevents glioblastoma growth and invasion.	Michael Mildner
89	Unraveling the Molecular Blueprint of Orthodontic Tooth Movement: A Transcriptomic Insight into Inflammation and Bone Remodeling	Morgan Mecham
90	Addressing Gaps in Early Radiology Education Through Introductory Rx Bricks in Nuclear Medicine and Interventional Radiology	Nathaneal Yang
91	Assessment of Image Modifications for Medical Students with Color Vision Deficiency	Nathaneal Yang
92	Regulatory Signal Mining of Orthodontic Device Adverse Events: A MAUDE-Derived Taxonomy and Severity Triage for Clear Aligners and Fixed Appliances	Nazmi Duka
93	Cost-Effective Blood Biomarkers for Monitoring Healthy Aging in U.S. Adults	Niloofer Tehrani
94	In Silico Biomarker Discovery for CRISPR-Cas-Based Detection of Latent Tuberculosis	Parv Kale
95	Accuracy of Salivary MMP-8 Testing for Periodontitis in Patients with Type II Diabetes	Piper Collins
96	Plant-Based Diet Effects on Dental Health: A Literature Review	Roopan Shahi
97	The connection between the PFC and moral decision making and the means of training the PFC	Rosemary Iwuanyanwu
98	Content Analysis of Semaglutide and Tirzepatide Products Sourced from Chemical Grade Vendors.	Sam Perez
99	Bridging Biology and Biomaterials: In Silico Discovery of Bioactive Surface Molecules to Enhance Osseointegration	Samuel Thomas
100	The Social Media-Driven Surge of Beef Tallow in Skincare: A narrative literature review and the dermatologic implications	Sarah Ngo
101	Oral Hygiene Practices and Potential Impact on the Gut Microbiome: A Structured Review	Savannah Renard
102	Optimizing Vehicle Solutions in Galleria mellonella: Survival Differences Between IPS and PBS	Scott Quimby
103	A flavonoid compound derived from epimedium prevents colon cancer cells growth	Shaurya Mehta

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104	Orthodontic Trial Transparency Audit: Automated Registry to Publication Linkage and Outcome-Switching Signals in Registered RCTs	Stephen Osman
105	Beyond Sugar: Nutrient patterns and dental caries risk in us children using explainable machine learning	Sydney Sorensen
106	An In-Vitro Investigation On The Synthesis & Characterization Of Novel Niobium-Based Bioglass Formulation For Use In Orofacial Applications	Syed Saad Qasim
107	Glycyrrhiza glabra inhibits oral cancer cells by immunomodulation-mediated oxidative stress induced apoptosis: A cell culture and statistical modeling analysis	Thirumal Raj
108	Assessing Abortion Law Education in Medical School Curricula	Tiffany Nguyen
109	Nicotine's Influence on the Oral Microbiome: Harm Reduction or Hidden Risk?	Trevor Ward
110	A comparative study and review of visual outcomes with enhanced versus standard monofocal intraocular lenses following cataract surgery	Triston Crook
111	Public accessibility and safety of FDA-approved drugs from nature	Tyler Rose
112	Oral Microbiome Stability During Orthodontic Treatment and a Minimal Inflammation Signature	Urwa Asad
113	TXA use in Dentistry	Valeria Coronilla
114	Early-Life Antibiotic Exposure and Dental Development: Microbiome Disruption, Immune Modulation, and Implications for Tooth Eruption	Veronika Bonar
115	Literature Review: The Effects of Exosomes on Injured Tissue	Victoria Mullin
116	When Nutrition Fails: Modeling Protein Malnutrition-Driven Vulnerability in Hepatic Drug Metabolism and Inflammatory Stress	Vijitha Kantety
117	Optimization of a KCC2 Small Molecule Agonist and the Development of an In-Silico Model of Intermolecular Dynamics for the Rational Design of Therapeutics Against Opioid Use Disorder	William Ho
118	Cranial OCMM Validation Study	Yanielisse Bellinger
119	Off-Label Use of Tirzepatide to Reduce Alcohol and Nicotine Consumption: A Randomized Control Trial	Yvannia Gray
120	Enhancing Medical Student Imaging Literacy Through Rx Bricks on Common Abdominal and Ultrasound Pathologies	Zadie Carlson
121	Women in the pharmacy workplace - gendered experiences	Zoe Campbell



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