

# SUBMISSION CATEGORIES BY SCIENTIFIC GROUP/NETWORK

**Behavioral, Epidemiologic and Health Services Research:** Abstracts should be submitted to this category if they are related to behavioral studies and other studies involving pain and anxiety, utilization of dental services, professional education, provision of care, clinical decision analysis, cost-effectiveness analysis, comparative-effectiveness research, reimbursement mechanisms or delivery systems and their effect on oral health. Studies that address the following topics are also appropriate: anthropology, psychology, sociology, health education and promotion, economics, finance and public health. Check the “epidemiological methods” box for papers that include important and timely issues pertaining to the design and conduct of human research studies. Descriptive epidemiology papers should be submitted to the Group corresponding to the topic area of the abstract.

**Cariology Research:** Abstracts should be submitted to this category if they are related to dental caries or dental erosion — specifically their etiology, prevention, diagnosis and treatment. Research approaches could include: epidemiology, clinical studies, or laboratory and animal experimentation. Studies that are concerned with caries, but where the major emphasis is related to microbiology, salivary glands or dental materials, should be considered by those particular Groups. The following submission options will be available: Demin/Remineralization; Erosion; Fluoride and Ca-based Products; Detection, Risk Assessment and Others; Microbiological Studies/Biofilm; and Clinical and Epidemiological Studies.

**Clinical & Translational Science Network:** Abstracts should be submitted to this category if they are related to clinical and translational research in dentistry, as well as to promote research in areas important for the development of this research, for example in the fields of research methodology, clinical study design, biostatistical and epidemiological methodology, informatics as it relates to clinical and translational studies, and integrative approaches to overall human health with a focus on dental connections and sequelae. A strong goal of the network is to integrate clinical and translational research interests across all IADR research groups and among dental academic and research institutions throughout the world, and to break down barriers to inter-institutional and interdisciplinary clinical and translational research.

**Craniofacial Biology:** Abstracts should be submitted to this category if they are related to a broad array of basic science and clinical studies dealing with the normal growth, development and maintenance of the craniofacial tissues and the consequences of physiological and pathological variations and challenges on these processes. Please submit papers for the craniofacial biology program based on the following division of topics: **(I) Molecular**—molecular aspects of craniofacial genetics, development, and cell biology; or **(II) Other studies**—including teratology, oral physiology, population studies, orthodontics, oral biology and temporomandibular joint function.

**Dental Anesthesiology Research:** Abstracts should be submitted to this category if they are related to dental anesthesiology and they relate to clinical and basic research in the methods and techniques for anxiety relief and pain control. These scientific areas of concentration may include local anesthesia, analgesia, sedation and general anesthesia for the systemic management of dental patients, especially medically compromised patients, and should also include the necessary precautions for the treatment of medical emergency cases.

**Dental Materials:** All scientific aspects of dental materials are appropriate for this category. This includes laboratory, clinical, and animal testing of materials and their components, as well as instruments and equipment. The interactions of materials and the oral environment are also included. The development of new materials, testing methods, and protocols is of particular interest. Please submit papers for the dental materials program based on the following division of topics: **I) Ceramic-based Materials:** Properties, characteristics, composition and performance of ceramics (except resin bonding), sintered ceramics, machined ceramics, ceramo-metal systems, and implants. **II) Polymer-based Materials:** Properties, characteristics, composition and performance of polymers and resin-containing dental materials, including unfilled polymers, composite sealants and restoratives, prosthetic resins and elastomers (excluding adhesives). **III) Metal-based Materials and Other Materials:** Properties, characteristics, composition and performance of amalgam, mercury, cast alloys, shape memory alloys, wrought wires and metallic implant materials as well as other materials-based topics specific to orthodontic, endodontic, operative, laboratory and preparatory materials. **IV) Adhesion - Bonding and Sealing:** Bond strength testing of all types of dental restorative materials, cements and sealants, microstructural analysis of adhesive interfaces, adhesive surface analysis, and

assessment of margin sealing and leakage at bonded interfaces. **V) Biocompatibility, Bioengineering and Biologic Effects of Materials:** Biocompatibility tests, properties and characteristics of antibacterial/anticariogenic materials and therapy, bio-active materials, regenerative therapy, interactions with oral environment and tissues. **VI) Instruments and Equipment:** Curing light units, cutting, finishing and polishing instruments, endodontic posts, and their mechanical properties, safety and efficacy, new microscopic and analytical techniques, CAD/CAM equipment, 3-D printers and other devices applied to materials. **VII) Color and Appearance (Esthetics):** Optical properties of all dental materials (color, translucency, gloss, fluorescence, opalescence, surface texture), in-vivo and in-vitro tooth whitening, instruments and equipment. **VIII) Clinical Trials:** Human studies involved with clinical performance for all materials.

**Diagnostic Sciences:** Abstracts should be submitted to this category if they are related to the detection and measurement of the severity and progression of all oral diseases. Equipment and techniques include, but are not limited to, methods such as radiography, optical, sound, nuclear medicine and magnetic resonance imaging. The subject area also includes evaluation of the accuracy and reproducibility of diagnostic methods as well as studies in clinical decision-making.

**e-Oral Health Network:** The newly created e-Oral Health Network is inviting submissions for oral presentations and posters, lunch and learning, workshops, and interactive symposiums on eHealth, Telehealth and ICT applications in dentistry and oral health care. Through these activities we aim at bringing together perspectives and insights not only from academics, but from a diverse audience and speakers from government, industry, oral health professional, special interest sectors, and leading experts from around the world to present and share recent achievements and developments in the eHealth field. We encourage IADR members to submit presentation abstracts that focus on practical experiences from clinicians, care providers, patients, insurance and health care funding arrangements, or public health perspectives, or that focus on research outcomes showing clinical, oral health and health benefits, economic benefits, quality of life benefits, etc. In particular, the network encourages submissions providing evidence for the efficiency, effectiveness and user acceptance of tele-dentistry and eHealth applications in oral health.

**Education Research:** Abstracts should be submitted to this category if they are related to research affecting all facets of education in the field of dentistry and oral health. Areas include but are not limited to: educational practice; teaching and learning dynamics; teaching evaluation, curriculum design, program evaluation, and outcomes evaluation at all levels (professional and public); competency evaluation (validity and reliability); applications of new technologies, methodologies, teaching and research approaches, characteristics of institutions, educators, and students, licensing and certification, quality assurance, continuing competence, and professional development, as well as cross-professional interaction.

**Evidence-based Dentistry Network:** Abstracts should be submitted to this category if they are related to all the aspects in the development and practice of evidence-based Dentistry. Submissions will be reviewed for validity, importance, and application of methods and techniques for developing, teaching and implementing knowledge distillation and transfer.

**Geriatric Oral Research:** Abstracts should be submitted to this category if they are related to research in the basic mechanisms of aging, the prevalence and characteristics of diseases and disorders in the aged, and their prevention and treatment. This includes general biomedical research, oral medicine, patient management, clinical techniques, and delivery systems, as well as the psycho-social and economic aspects of treating the older adult.

**Global Oral Health Inequalities Research Network:** Abstracts should be submitted to this category if they are related to global oral health inequalities research, including — though not restricted to: research focused on Global Oral Health Inequalities, particularly with the wider health community; interdisciplinary research; research focused on developing standard reporting criteria; implementation research; research that emphasizes the significance of social determinants of oral health, including exposure to environmental risk factors; research based on upstream prevention, with an emphasis on early health promotion at critical stages of the life course.

**Implantology Research:** Abstracts should be submitted to this category if they are related to the basic and clinical science aspects of the implantation of materials and/or biological analogues into the orofacial complex for the augmentation, replacement, or regeneration of body tissues, excluding tooth restoration. The properties of both the natural tissues being replaced and the synthetic/biological substitutes are of interest. The subject area includes:

structural and property studies on natural and synthetic materials, biological investigation, tissue/material interfaces, and systematic clinical evaluation of implant materials and designs.

**International Network for Orofacial Pain and Related Disorders Methodology (formerly the International RDC/TMD Consortium):** Specific goals include establishing a working consortium of multi-national clinical centers having the capability to conduct interdisciplinary basic, translational and clinical research on an international and collaborative level into the etiology, diagnosis, prevention and management of TMDs and orofacial pain conditions, and developing comparable evidence-based diagnostic criteria through research collaboration into all acute and chronic dental and orofacial pain conditions. The Research Diagnostic Criteria for Temporomandibular Disorders (Dworkin and LeResche, 1992; RDC/TMD) has become internationally recognized as a useful clinical, laboratory, and epidemiologic classification tool. In order to ensure that (1) patients experiencing TMDs receive only the most appropriate care, (2) laboratory experiments produce generalizable data via reliable classification, and (3) clinical and epidemiological studies are conducted within a common framework, the International RDC/TMD Consortium Network, “the Consortium”, has been created to foster collaborative international research yielding the most accurate and useful evidence-based description of the complete natural history, clinical course and therapeutic efficacy of TMDs and of all the risk and protective factors influencing all forms of TMDs.

**Microbiology/Immunology:** Abstracts should be submitted to this category if they are related to microbiology/immunology, including: micro-organisms, such as bacteria, viruses, fungi, protozoa, etc., and their relationship to and/or association with oral diseases; microbial pathogenesis; microbial biofilms; microbial genetics, gene structure, gene expression and regulation, genomics, and proteomics; microbial physiology and the by-products of micro-organisms and their relationship to oral diseases; the effects of chemicals, antimicrobial agents, etc., on the physiology and virulence of oral micro-organisms; the serologic and immunologic aspects of oral diseases (human immunologic response to oral micro-organisms); the systemic effects of oral organisms; oral manifestations of systemic diseases; and cell biology and tissue culture studies (excluding experimental pathology) as they relate to oral micro-organisms and diseases. Infection Control: This area includes research covering all aspects of infectious disease transmission and control in the context of oral health care and its delivery in any setting, including the dental office, laboratory, and hospital. Presentations may include assessments of transmission potential and risk, methods of disease spread, or techniques for prevention of cross-infection arising from any source, such as person-to-person contact or via fomites or aerosols.

**Mineralized Tissue:** Abstracts should be submitted to this category if they are related to research principally directed toward elucidation of some aspects of hard-tissue structure, formations or function. While overlap between research in this area and that of cariology, periodontology and/or salivary research may frequently occur, distinction should be made on the basis of the primary goal of the research. The following session topics should aid you in determining whether a research topic is appropriate for this area: formation of calcium phosphates; regulation of mineralization and dissolution; fluoride; development and mineralization; matrix constituents; regulatory factors in bone resorption; regulatory factors in cell culture; ultrastructure and morphology; and morphology, physiology, and chemistry.

**Network for Practice-based Research:** Abstracts should be submitted to this category if they are related to research performed in dental practice, away from universities or laboratories. This may include research on any topic performed in private, public, military or other dental clinics. It may be on topics such as the evaluation of materials, equipment or techniques both clinical and non-clinical, the evaluation of administrative and financial aspects of practice, social, epidemiologic and behavioral evaluation relevant to dental practices and many others.

**Neuroscience:** Abstracts should be submitted to this category if they are related to and involve investigations of neural regulation of development and neural plasticity, excitable membranes, synaptic transmission, neurotransmitters, receptors, neuro-endocrine, exocrine, autonomic regulation, sensory systems (especially pain), muscle and motor systems and sensorimotor integration. The clinical interests of this subject area include clinical studies of orofacial sensation, such as pain, temperature, touch, taste, studies on jaw, facial, and oral reflexes, as well as more complex sensorimotor functions such as voluntary movement, mastication, swallowing and speech. In addition, movement control and movement disorders such as orofacial dyskinesia or Parkinson’s, and sleep-related orofacial disorders such as bruxism and apnea-snoring are relevant. Neuroscience/TMJ is also particularly concerned with all aspects regarding the measurement, mechanisms, diagnosis, and treatment of orofacial and TMJ pain and neuromuscular dysfunction.

**Nutrition:** Abstracts should be submitted to this category if they are related to research in the area of nutrition and oral/craniofacial health, and the consequences of oral/craniofacial dysfunction on general nutrition and health. The oral cavity is the site of many acute and chronic diseases and congenital anomalies — any or all of which may be linked to nutritional status. The Nutrition Group brings together dental scientists who are interested in sharing and exploring new avenues in this research discipline.

**Oral Health Research:** Abstracts should be submitted to this category if they are related to a broad array of basic, clinical and applied studies related to: oral/dental hygiene strategies for the prevention of oral disease and the promotion of wellness; the outcomes of primary and secondary preventive care provided to and in collaboration with individuals and groups in a variety of settings; interdisciplinary approaches to integrating oral health into general health; clinical efficacy of professional and personal oral hygiene measures; methods to improve health outcomes of compromised patients through improved oral hygiene; the dental hygiene process of care; self-care strategies, including adaptations for special and culturally diverse populations, client-coping and practitioner caring dimensions, and promotion of healthful lifestyles; disease-prevention-/health-promotion-focused curricular models; science transfer methods; ethics and quality assurance; alternative patterns of practice; clinical decision-making; and issues related to the conduct of research, including approaches to subject recruitment and retention, protocol compliance, data management and monitoring, quality control and study coordination.

**Oral & Maxillofacial Surgery:** Abstracts should be submitted to this category if they are related to basic and applied research dealing with the surgical and non-surgical management of: impacted teeth; residual ridge deformities and their reconstruction with grafts, alloplasts, and implants; dentofacial and craniofacial deformities; temporomandibular joint dysfunction; hard- and soft-tissue trauma; benign and malignant diseases of the soft and hard tissues, including salivary glands; reconstruction of soft- and hard-tissue defects; infection of the face, head, and neck; nerve dysfunction; post-surgical pain and swelling; and wound healing and factors which affect it, as well as long-term follow-up data on research done in any of these areas.

**Oral Medicine & Pathology:** Abstracts should be submitted to this category if they are related to experimental investigation of diseases affecting the oral cavity and the adjacent tissues, but excluding those (e.g., periodontal disease, caries, salivary research) more appropriately dealt with by other Groups. Experimental investigations of normal structure are appropriate insofar as they contribute to our understanding of disease, and cell, tissue, and organ cultures are also included in this category. Epidemiological, clinical and laboratory research are encouraged.

**Orthodontics Research:** Abstracts should be submitted to this category if they are related to any aspect of orthodontics field including Clinical, Materials & Appliances, Basic Science, and Translational Research. Abstracts submitted for Clinical Orthodontics Research should focus on, but are not limited to: 1) innovative approaches to diagnosis or treatment of dental and skeletal malocclusion, 2) improved interdisciplinary case treatments, 3) non-surgical treatment strategies for skeletal malocclusions, 4) novel treatments for patients with craniofacial anomalies, 5) improved patient management techniques and 6) advances in mechanotherapy and biomechanics. Abstracts submitted for Materials & Appliances should focus on 1) new appliances and tools, 2) new bonding materials 3) new bracket and wire design, 3) new imaging and scanning tools, 4) management and diagnostic innovations in software, 5) any other invention that can improve daily care by Orthodontists. Abstracts submitted for Basic Science should focus on any in vitro or in vivo studies that 1) advance our knowledge in growth and development, 2) biological response to mechanical stimulation, 3) bone biology (bone formation, resorption, and remodeling) 4) biology of tooth movement 5) etiology of malocclusion and skeletal deformities 5) anthropology studies of human skull and occlusion 6) cartilage development, remodeling and disease. Abstracts submitted for Translational Research should focus on, but are not limited to, applied basic science, engineering, and all implementation of science to advance clinical Orthodontics such as 1) accelerated orthodontics 2) expanding the boundaries of tooth movement 3) enhanced orthopedic treatment, 4) improving biological response during retention 5) new methodologies to control bone remodeling, 5) approaches to efficiently convert basic science data into clinical Orthodontics treatments. Abstracts from interdisciplinary research teams working on Clinical or Translational Orthodontics are strongly encouraged.

**Pediatric Oral Health Research:** Abstracts should be submitted to this category if they are related to pediatric oral health research and report results of clinical, survey, in vitro, genetic, health services and qualitative studies related to pediatric/children's oral health. This includes but isn't not limited to cariology, pulp therapy in children, behavioral factors and study population characteristics of participants under 18 years of age, and caregivers of children.

**Periodontal Research:** Abstracts should be submitted to this category if they are related to periodontal and peri-implant tissues, epidemiology and diagnosis of periodontal diseases and peri-implant biological complications, etiological factors/microbiology, pathogenesis, of periodontal diseases and peri-implant biological complications, preclinical *in vivo* experiments and clinical trials to evaluate treatment of periodontal diseases and peri-implant biological complications, chemoprevention and chemotherapeutic approaches, patient reported outcome measures related to diseases of the periodontium and peri-implant tissues and their treatment.

**Pharmacology, Therapeutics & Toxicology:** Abstracts should be submitted to this category if they are related to laboratory, clinical, public health or epidemiologic research on the mechanism, nature, or treatment of diseases or disorders related to dentistry and the introduction of new drugs for the treatment of such entities may be submitted to PTT. Those dealing with the adverse effects of procedures, materials, drugs, devices, etc., used in the diagnosis, management, or treatment of such diseases or disorders are similarly appropriate. Toxicological studies of drugs, chemicals and other agents pertinent to the field of dentistry, as well as the associated hazards of such agents, may also be included.

**Prosthodontics Research:** Abstracts should be submitted to this category if they are related to prosthodontics research and includes the following: fixed prosthodontics, removable prosthodontics, materials as they relate to prosthodontics in general, occlusion, TMJ research, implants, electromyography, basic and clinical applications to restorative dentistry in general, electrosurgery, ceramics and acid-etch restorative dentistry.

**Pulp Biology & Regeneration Research:** Abstracts should be submitted to this category if they are related to studies on the development, structure, and function of the dental pulp, the dentin-pulp complex and related periapical tissues. Studies may include methods in the following areas of analysis: autoradiography, radiography, molecular biology, protein chemistry (genomics and proteomics), microbiology, immunology, physiology, biochemistry and pharmacotherapeutics. Physiological and pathological processes involving these tissues include: signaling mechanisms in tooth development, dentinogenesis and dentin matrix proteins, wound healing and regeneration, as well as neural, vascular, and cellular responses to anesthesia, pain-producing stimuli, materials and instrumentation used in the restoration of teeth and hereditary diseases. Also included are those related areas of clinical research pertaining to dentin and pulpal tissues from disciplines such as endodontics, pediatric dentistry, restorative dentistry (e.g., pulpal compatibility testing of dental restorative materials), periodontics (e.g., root dentin hypersensitivity) and oral and maxillofacial surgery.

**Salivary Research:** Abstracts should be submitted to this category if they are related to the morphology, biochemistry, physiology, endocrinology, development and pathology of salivary glands; the composition, secretion, and functions of saliva; and the synthesis of salivary components. It may also include the effects of saliva on oral structures and micro-organisms—especially dental plaque and calculus—and the influence of such effects on oral pathological conditions—such as dental caries, periodontitis, mucositis and ulcers—provided there is sufficient emphasis on the salivary factors.

**Student Training and Research (STAR) Network:** Abstracts should be submitted to this category if they are related to promoting, encouraging and fostering student research on a global level.

**Stem Cell Biology:** Abstracts should be submitted to this category if they promote and encourage investigation into stem cell biology, particularly in relevance to orofacial stem/progenitor cells. Abstract subjects should promote and encourage the development of stem cell therapies for the regeneration of orofacial tissues. Abstracts should provide an international and cooperative forum for the discussion of stem cell biology and regenerative dental medicine. Submitted abstracts should further promote translational approaches of stem cell biology into novel or enhanced approaches that benefit the health of patients who suffer from dental, oral and craniofacial diseases.

**Women in Science Network:** Abstracts should be submitted to this category if they are related to women's oral health and its association with general health, gender and health disparities, gender inequality in academia and research and women's leadership.