Seminars in Dysphagia

This book reviews the progress made in salivary diagnostics during the past two decades and identifies the likely direction of future endeavors. After an introductory section describing the histological and anatomical features of the salivary glands and salivary function, salivary collection devices and diagnostic platforms are reviewed. The field of “salivaomics” is then considered in detail, covering, for example, proteomics, the peptidome, DNA and RNA analysis, biomarkers, and methods for biomarker discovery. Salivary diagnostics for oral and systemic diseases are thoroughly discussed, and the role of salivary gland tissue engineering for future diagnostics is explored. The book closes by considering legal issues and barriers to salivary diagnostic development. Advances in Salivary Diagnostics will be an informative and stimulating reference for both practitioners and students.

Silverberg's principles and practice of surgical pathology and cytopathology

Salivary Glands

Saliva is a complex fluid that maintains oral health and has many physiological functions. It is a noninvasive diagnostic fluid as well. Lately, salivary diagnostics has proven its potential to reach clinical practice in the near future for the early detection, diagnosis, and monitoring of various diseases. Salivary Glands - New Approaches in Diagnostics and Treatment is a comprehensive reference, which brings together information on salivary secretion and its disorders, the novel salivary diagnostic methods for numerous diseases, and new techniques in the treatment of salivary diseases. This book contains information for a diverse audience, including dentists, oral biologists, experimental biologists, molecular biologists, oncologists, radiologists, oral and maxillofacial surgeons, and otorhinolaryngologists.

Salivary Diagnostics
Manual of Salivary Gland Diseases

Diseases of the Salivary Glands

A sound understanding of clinical oral pathology is essential if a dental clinician is to navigate successfully through clinical guidelines, make timely referrals to specialists, and provide good care for patients. This new edition of Soames' & Southam's Oral Pathology provides a clear and friendly guide for students, practitioners, and the whole dental team. Thoroughly updated for today's clinical practice, this textbook covers 'must-know' oral pathology and integrates key aspects of oral medicine. It begins by explaining the principles of clinical assessment, the synthesis of a differential diagnosis, and the selection of further investigations including laboratory tests. Ten chapters bring this theory to life by looking at the clinical and pathological features of a wide range of common oral diseases including oral cancer, salivary gland disorders, and diseases of the jaws. Two new chapters address skin diseases affecting the oro-facial region and neck lumps. A final chapter highlights the importance of clinical oral pathology in the context of systemic human disease. New radiology content includes examples of cross-sectional imaging. Photomicrographs have been replaced with carefully selected images to illustrate key pathological features. Each chapter includes key points boxes and tables to aid learning. Written by experts in both oral pathology and oral medicine, this new edition is a must-have for dentistry students, and those working in the field, providing current and trustworthy information.

Sialadenosis and Sialadenitis

For the third edition, the text has been thoroughly revised to keep pace with new concepts in oral medicine. The structure of the text has been clarified and made more practically useful, with references to etiology, clinical images, differential diagnosis, laboratory diagnostic tests, and therapy guidelines. Also new in the third edition: four new chapters, and more than 240 new, exquisite illustrations of lesions and pathologic conditions affecting the oral cavity.

Chronic Autoimmune Epithelitis

Health professionals are more and more aware of the importance of saliva for oral health and well-being. As saliva secretion is steadily compromised with advancing age, it becomes a factor of concern in societies with an aging population, especially with a growing number of...
people who keep their own teeth. The numerous functions of saliva, like antimicrobial activity, lubrication, wound healing and its role in taste experience are only truly recognized when saliva secretion is hampered. In medical diagnostics, saliva shows its value as a safe and economical alternative to blood. This publication provides a comprehensive overview of the latest developments in salivary research by some of the world’s leading experts in the field. Chapters deal with various aspects: anatomy and physiology, e.g. regeneration of salivary glands, saliva functions, e.g. its protective and rheological properties, and diagnostics and disorders, e.g. xerostomia and hypersalivation. This book is not only recommended to basic scientists working in the field of oral biology, but also to dental students, dentists and health professionals who want to know more about one of the most underestimated bodily fluids.

Pediatric Head and Neck Pathology

Salivary glands are unique because of the manifold subtypes of benign and malignant diseases found there. Written by the internationally leading authorities, Salivary Gland Disorders and Diseases: Diagnosis and ManagementCovers the full spectrum of infectious, inflammatory, acute, chronic, benign, and malignant disorders and diseases of the salivary glands Offers a wealth of expert tips, tricks, pitfalls, and recommendations for effective diagnostic, surgical, and medical management Highlights all topics with hundreds of full-color images, diagrams, and superbly detailed surgical illustrations As the comprehensive single-source reference in the field, this book is essential for head and neck surgeons, otolaryngologists, maxillofacial surgeons, dentists, oral pathologists, plastic surgeons, and any other clinicians involved in daily clinical management of patients with salivary gland disorders and diseases.

Diagnostic Imaging of Infants and Children

This unique reference provides a comprehensive guide to pediatric head and neck pathology in patients up to the age of 21. Chapters take a clinicopathologic approach, offering insight into the pathobiology, diagnosis and treatment of both common and rare disorders. Imaging studies and immunohistochemical techniques are discussed alongside accepted and emerging molecular tools. The authors' holistic approach ensures coverage of the surgical management principles that pathologists must understand, particularly when called upon to diagnose odontogenic tumors and cysts, as well as benign and malignant salivary gland neoplasms. The book is richly illustrated in color throughout. Each copy of the printed book is packaged with a password, providing online access to the book's text and image library. Written by leaders in head and neck pathology and surgery, this is an essential guide to solving the diagnostic dilemmas that pathologists and clinicians encounter in the assessment of pediatric head and neck disease.

Controversies in the Management of Salivary Gland Disease

The aim of this book is to harmonize the field of Otorhinolaryngology, Head and Neck Surgery and its interdisciplinary subjects within the European Community; to present the state of the art in the field and to give standards for diagnostic and therapeutic procedures. The book includes sections titled Head and Neck, Larynx and Trachea, Nose and Paranasal Sinuses, Oral Cavity and Oropharynx, and Otology and Neurotology. It also covers such topics as patient evaluation and treatment, basic surgical procedures, as well as more conservative approaches. The book is authored by renowned experts throughout Europe, and features a layout that facilitates quick and easy retrieval of information.

Different Views of Anxiety Disorders

Textbook and Color Atlas of Salivary Gland Pathology: Diagnosis and Management provides its readers with a new, landmark text/atlas of this important discipline within oral and maxillofacial surgery, otolaryngology/head and neck surgery, and general surgery. Written by well-established clinicians, educators, and researchers in oral and maxillofacial surgery, this book brings together information on the etiology,
diagnosis and treatment of all types of salivary gland pathology. Clear and comprehensive, the Textbook and Color Atlas of Salivary Gland Pathology offers complete explanation of all points, supported by a wealth of clinical and surgical illustrations to allow the reader to gain insight into every facet of each pathology and its diagnosis and treatment.

**ENT**

Seminars in Dysphagia provides a comprehensive overview of contemporary issues in the field of dysphagia assessment, treatment and management in diverse subject populations. Expert views are shared by international clinical experts from different medical and allied health fields. This book contains an introductory chapter on the anatomical structures and physiology processes that underpin dysphagia and discusses the effects of polypharmacy and ageing on deglutition. Contemporary practices of functional assessment of swallowing and the endoscopic assessment for both oropharyngeal and esophageal dysphagia are reviewed. Both the nutritional support and decision making in oral route are described and the impact of dysphagia on carers and family when managing dysphagia. Several chapters are dedicated to outlining the manifestation and consequences of dysphagia in specific populations, including persons with Parkinsons disease, dystonia, chronic obstructive pulmonary disease and mixed connective tissue disease.

**Burket's Oral Medicine**

**Clinical Small Animal Internal Medicine**

Emerging Trends in Oral Health Sciences and Dentistry is the second book on Oral Health Science. The first book is Oral Health Care-Pediatric, Research, Epidemiology and clinical Practices and Oral Health Care-Prosthodontics, Periodontology, Biology, Research and systemic Conditions published in February 2012. The present book is a reflection of the progress in Oral Health Sciences, practices and dentistry indicating the direction in which this stream of knowledge and education is likely to head forward. The book covers areas of General Dentistry, Paediatric and Preventive Dentistry, Geriatric and Prosthodontics, Orthodontics, Periodontology, Conservative Dentistry and Radiology and Oral Medicine.

**Gnepp's Diagnostic Surgical Pathology of the Head and Neck E-Book**

NORD Guide to Rare Disorders is a comprehensive, practical, authoritative guide to the diagnosis and management of more than 800 rare diseases. The diseases are discussed in a uniform, easy-to-follow format--a brief description, signs and symptoms, etiology, related disorders, epidemiology, standard treatment, investigational treatment, resources, and references. The book includes a complete directory of orphan drugs, a full-color atlas of visual diagnostic signs, and a Master Resource List of support groups and helpful organizations. An index of symptoms and key words offers physicians valuable assistance in finding the information they need quickly.

**Diagnosis of salivary gland disorders**

Salivary Endoscopy is a rapidly emerging field that has revolutionized the management of non-neoplastic diseases of the salivary gland, such as salivary stones, sialadenitis, and salivary duct stenosis. With the emergence of endoscopic access to the salivary ductal system, several procedural and technical innovations have emerged that have now permitted gland preservation surgery for these pathologies. As more centers and physicians are adopting this rapidly emerging and evolving procedure, there is a need for source of literature that provides current concepts and detailed technical descriptions of the procedures that involve gland preservation surgery. This text intends to capture the
current concepts among experts and in literature regarding the management of non-neoplastic salivary gland diseases. The book also focuses on steps of surgical management and technical pearls while providing detailed information on the decision-making process when encompassing the diversity of clinical presentation, intra-operative decision-making and post op care. Gland Preservation Surgery provides high quality illustrations, clinical and operative images, and videos that serve as an online resource to salivary gland surgeons and endoscopists with varying experience and expertise.

Otorhinolaryngology, Head and Neck Surgery

Offering the most comprehensive collection of head and neck pathology specimens available in one reference, Gnepp’s Diagnostic Surgical Pathology of the Head and Neck, 3rd Edition, is a must-have resource for pathologists in training and practice. This abundantly illustrated volume covers both common and rare disease entities of the entire head and neck area, with particular emphasis on differential diagnosis and diagnostic problems and pitfalls. Detailed text and a highly visual format help you improve turnaround time when diagnosing a specimen and facilitate clear communication of prognosis and therapeutic management options to surgical/medical colleagues. Covers key topics such as molecular aspects of disease, especially in reference to targeted therapy and personalized medicine; the latest classification and staging systems for head and neck diseases and disorders; and immunohistochemical features that help ensure diagnostic accuracy. Discusses new diagnostic biomarkers and their utility in differential diagnosis, as well as newly described variants and new histologic entities. Includes a new chapter on eye pathology. Incorporates new criteria as established by the 2017 World Health Organization classification of Head and Neck tumors and the 2017 World Health Organization classification of Endocrine organ tumors. Provides clinicopathologic correlations throughout to give you all the information you need to formulate a complete diagnostic report. Features more than 1700 full-color illustrations that capture the pathologic appearance of the full range of common and rare neoplastic and non-neoplastic lesions.

Tumors of the Major Salivary Glands

Historically, disorders of salivary glands tend to be 'underdiagnosed and overtreated'. In the vast body of literature on this subject, emphasis has usually been put on therapeutic modalities of various diseases of the salivary glands. Whereas therapy and pathology have been treated in numerous thorough studies, the (patho )physiology of the salivary glands has remained rather poorly understood. Even less attention has been given to the diagnostic methods. Until a few decades ago, diagnosis consisted mainly of a clinical examination which included the patient's history, inspection, and palpation. These methods remain crucial, but a variety of new diagnostic tools have appeared since then. Their clinical value is still subject to controversy; each method has its advocates and opponents. The indications for enrolling a patient at a given point in a series of diagnostic procedures are interpreted differently. One of the most striking examples is the use of sialography. This has become a classic diagnostic procedure. Although sialography is still a useful method, it has considerable disadvantages, limitations, and even contraindications. In the major teaching hospitals, residents still tend to consider sialography as a panacea for the majority of their diagnostic problems, whereas the information provided is actually rather restricted. Other modern methods such as CT and MRI have taken over the role of sialography to a certain extent. This also applies to ultrasonography and scintigraphy. Moreover, microbiology, sialometry, sialochemistry, cytology, and histopathology may give superior information in certain cases.

Color Atlas and Textbook of the Salivary Glands

Translational Systems Medicine and Oral Disease

Here is a complete reference on the fundamental science, treatment, and management of salivary gland disorders. Covering anatomy, physiology, histology, cytology, pathology, and imaging, this text is a premier resource for physicians who diagnose and treat salivary
gland diseases both medically and surgically. Highlights: Comprehensive review of both the common and unusual salivary gland disease entities in the adult and child Full-color histologic, cytologic, and pathologic photomicrographs help the clinician gain a full understanding of disease More than 200 line drawings and images demonstrate key steps in every surgical technique described Discussion of the new and emerging techniques of sialendoscopy, IMRT, and de-novo tissue engineering of functional salivary gland tissue Otolaryngologists, head and neck surgeons, oral surgeons, plastic surgeons, general surgeons, radiation oncologists, and pathologists will benefit from this exceptional text.

Color Atlas of Orofacial Health and Disease in Children and Adolescents

Both the major and minor salivary glands can be the site of a wide variety of diseases and functional disturbances. This monograph covers both the common lesions and conditions of the salivary glands as well as the rare ones. Much attention is given to the problematic complaint of dry mouth and the even more cumbersome diagnostic aspects of Sjögren’s syndrome. Emphasis is on the clinical aspects and the management of the various disorders. The vast experience of the authors is reflected in their clear and concise style. The illustrations are well chosen and updated references are provided, where appropriate.

The Milan System for Reporting Salivary Gland Cytopathology

Like the successful first edition, this improved, updated and expanded second edition profiles the common orofacial disorders and a wide range of less common and some rare disorders. The focus is on the occurrence of these disorders in children and adolescents, and the author tailors the commentary to specific pediatric age groups. In the new edition, the text includes treatment recommendations for the most common oral diseases. Any health professional called upon to diagnose and treat children who have orofacial problems will benefit from the wealth of material offered here.

Emerging Trends in Oral Health Sciences and Dentistry

This volume describes a uniform international approach for classifying and reporting salivary gland FNA samples. The new reporting system is evidence-based using data from the literature as well as upon the experience of a multi-disciplinary group of leading experts involved in the field of salivary gland cytopathology. Each diagnostic category of this novel salivary gland reporting system includes detailed descriptions of the cytologic criteria as well as a comprehensive set of photomicrographs demonstrating all of the key microscopic features along with annotated descriptions for each image. Designed as a practical book with easy readability, The Milan System for Reporting Salivary Gland Cytopathology combines the high-quality images of an atlas with a logical approach described in concise text-form and in line-drawing algorithms. It presents for the first time, an international cytologic reporting system for salivary gland lesions designed and endorsed by a panel of experts in the field.

Diseases of the Salivary Glands Including Dry Mouth and Sjögren’s Syndrome

In the past several decades, the medical community has witnessed professionals, instead of generalizing their knowledge, specialize in a specific area of practice. Head and neck surgery have thus become a major specialty within the surgical domain, and the management of specific gland disorders encompasses a broad array of both benign and malignant diseases. Diagnostic Techniques and Therapeutic Strategies for Parotid Gland Disorders is a collection of innovative research on the clinical and diagnostic techniques as well as several therapeutic strategies of parotid gland disorders. Serving as a quick reference and practice manual, the book addresses a wide range of topics including embryological development and anomalies, histology and surgical anatomy, physiology, parotid gland evaluation, xerostomia, traumatic injuries and fistulæ, calculi, sialosis, sialadenitis, cysts and tumors of the parotid gland, and the various techniques and potential
complications of parotidectomy including Frey's syndrome, in addition to extra-temporal facial nerve reconstruction procedures. It is ideally designed for medical professionals, surgeons, researchers, academicians, and medical students.

**Diagnostic Techniques and Therapeutic Strategies for Parotid Gland Disorders**

Co-edited by Eugene N. Myers, a world-famous expert in the field, this has got to be the last word on salivary gland disorders. The disorders themselves cover a broad array of diseases, both benign and malignant. Thus, the contents of this book have been organized to reflect the diverse nature of salivary gland anatomy, physiology, and dysfunction in various states of disease. In this way, the evolution of the field and its diagnostic and therapeutic management are better demonstrated. Covering everything from practical diagnosis to gland tumor therapy, this really is a crucial work for any surgeon working in the facial or neck regions.

**Color Atlas and Text of the Salivary Glands**

This concise book summarises the basic knowledge required to be an otolaryngologist. It covers the 300 main diseases of ear, nose and throat, summarizing the main symptoms of each, the required diagnostic process and the therapeutic approach. This compact presentation of knowledge is very useful and practical. The reader can quickly access essential information on the majority of the ENT diseases. ENT: Core Knowledge is ideal for ENT residents who are preparing for Board exams, for specialists who want to refresh and update their knowledge, and for general practitioners with a special interest in ENT.

**Salivary Gland Disorders**

Despite the relevance of eating disorders in the past years, the pure core of these mental disorders remains unknown. In this regard, it is not a surprise that the biopsychosocial model is the best way to go forward in order to understand and to improve the different approaches, biological (mainly neurobiological), psychological, and social, in managing these disorders. Eating disorders are frequent pathologies, many times severe and often devastating for patients and their families. Biological, psychological, and social factors are always involved in these disorders, and knowledge about the influence of these factors helps us to better understand eating disorders. This book includes different studies about main topics of eating disorders and is useful for psychologists, doctors and others interested in this disorder.

**Textbook and Color Atlas of Salivary Gland Pathology**

Anxiety, whether an illness or emotion, is a term with historical roots even in the Bible, but it was not popular until the modern age. Today, we can group, diagnose and treat several anxiety disorders to an extent, but the assessment of symptoms and severity, dealing with resistant conditions, new treatment modalities and specific patient population, such as children, are still the challenging aspects of anxiety disorders. This book intends to present anxiety disorders from a different view and discuss a wide variety of topics in anxiety from a multidimensional approach. This Open Access book addresses not only psychiatrists but also a broad range of specialists, including psychologists, neuroscientists and other mental health professionals.

**Salivary Glands**

Translational Systems Medicine and Oral Disease bridges the gap between discovery science and clinical oral medicine, providing opportunities for both the scientific and clinical communities to understand how to apply recent findings in cell biology, genomic profiling, and systems medicine to favorably impact the diagnosis, treatment and management of oral diseases. Fully illustrated chapters
from leading international contributors explore clinical applications of genomics, proteomics, metabolomics, microbiomics and epigenetics, as well as analytic methods and functional omics in oral medicine. Disease specific chapters detail systems approaches to periodontal disease, salivary gland diseases, oral cancer, bone disease, and autoimmune disease, among others. In addition, the book emphasizes biological synergisms across disciplines and their translational impact for clinicians, researchers and students in the fields of dentistry, dermatology, gastroenterology, otolaryngology, oncology and primary care. Presents the work of leading international researchers and clinicians who speak on the clinical applications of genomics, proteomics, metabolomics, microbiomics, and epigenetics, as well as analytic methods and functional omics in oral medicine. Provides full-color, richly illustrated chapters that examine systems approaches to periodontal disease, salivary gland diseases, oral cancer, bone disease and autoimmune diseases. Includes clinical case studies that illustrate examples of oral disease diagnostics and management, highlighting points of key importance for the reader. Emphasizes biological synergisms across disciplines and their translational impact for clinicians, researchers, and students in the fields of dentistry, dermatology, gastroenterology, otolaryngology, oncology, and primary care.

Color Atlas of Oral Diseases

Pathology and Pathogenesis of Human Viral Disease is a comprehensive reference that examines virus-induced clinical disease of humans in the context of the responsible virus and its epidemiology. Encompassing everything from cold and flu viruses to sexually transmitted diseases, this important resource describes the cellular and tissue pathological changes attributable to infection in the context of the pathogenic mechanisms involved. The author provides a comprehensive review of the older and contemporary literature, considering both the common and much rarer complications of infection. Pathology and Pathogenesis of Human Viral Disease is written from the unique perspective of the clinical pathologist. It will help clinicians and pathologists gain a better understanding of changes that occur in viral infected cells, tissues, and organs. It will also serve as a pathology source book for virologists, internists, and pediatricians. Key Features * Provides a comprehensive, worldwide perspective of viral disease pathology * Bridges the fields of pathology and virology; integrating clinical disease with cell and tissue pathology * Addresses topics from the perspective of the clinical pathologist * Illustrates unique, viral induced pathological lesions * Considers common and uncommon complications of infection

Gland-Preserving Salivary Surgery

A large number of diseases affect salivary gland (SG) secretion through different mechanisms, leading to SG dysfunction and associated oral problems. The glands may suffer from viral, bacterial, and, albeit rarely, fungal infections, which may cause painful swelling or obstruction; they could also become the target of an autoimmune attack or may be affected by various benign and malignant tumors which consist of a heterogeneous group of lesions with complex clinical-pathological characteristics. The loss of normal SG function results in widespread deterioration of oral health. This book, entitled “Diseases of Salivary Glands”, provides an overview of recent advances in the field of SG disorders, focusing on the cellular and molecular mechanisms involved in the pathogenesis of SG diseases and on the most innovative investigation techniques that could help to preserve patients’ health, function, and quality of life.

Eating Disorders

Advances in Salivary Diagnostics

Pathology and Pathogenesis of Human Viral Disease
Addressing controversial and topical issues in the field of salivary gland disease and surgical management of salivary gland disease, this new edition integrates the newest clinical findings with the historical pathological records, and attempts to resolve any conflicts between the two. Fully-illustrated and updated since the first edition in 2002, it is particularly useful for trainees sitting their final exam, because it deals with new controversial subjects which are topical at all the conferences and exam vivas.

**Soames' & Southam's Oral Pathology**

Epithelial tissue does not spring to mind as an obvious source of autoimmune phenomena. Yet, genetic predisposition and influence of various environmental and epigenetic factors may lead to epithelium becoming a springboard for the development of autoimmune diseases, such as Sjögren’s syndrome, primary biliary cholangitis, autoimmune pancreatitis, or IgG4-related diseases. This book is intended as an introduction to the problem of “autoimmune epithelitis” and diseases closely related to the immune disturbances of the epithelium, with special emphasis on those affecting exocrine glands. Both theoretical and practical knowledge, presented by authors from a wide range of medical specialties, should be of help for medical professionals who have to deal with this difficult problem in their daily practice.

**Salivary Gland Disorders and Diseases: Diagnosis and Management**

Salivary glands are of utmost importance for several physiological functions ranging from the protection of teeth and surrounding soft tissues to the lubrication of the oral cavity, which is crucial for speech and perception of food taste. This publication highlights specific aspects of salivary gland development, investigating the mechanisms involved in embryonic development, the current research in stem cells, the ability of adult glands to regenerate and the signalling pathways involved in this process. Key stages of salivary gland development, moving from initiation to differentiation of the glands, are discussed, as well as unusual adaptations, ranging from making silk to making venom. The book finally provides new data on surgical techniques and diagnostic tools for clinicians involved in salivary gland disorders. Researchers and students with an interest in craniofacial sciences as well as clinicians dealing with salivary gland disorders will find this publication an excellent source of up-to-date information.

**Saliva: Secretion and Functions**

**NORD Guide to Rare Disorders**

Clinical Small Animal Internal Medicine is a comprehensive, practical reference designed to meet the needs of veterinary practitioners and students alike. Covering all aspects of small animal internal medicine, this innovative guide provides clinically relevant material, plus podcasts and continual updates online. Concise, identically-formatted chapters allow readers to quickly find the most essential information for clinical veterinary practice. Contributions from academic and clinical experts cover general medicine subjects, including patient evaluation and management, critical care medicine, preventative care, and diagnostic and therapeutic considerations. Topics relevant to daily clinical practice are examined in detail, ranging from endocrine, cardiovascular, respiratory, and infectious disease to oncology, dermatology, metabolic orthopedic disease, gastroenterology, and hepatology. A companion website features podcasts and updated information. An important addition to the library of any practice, this clinically-oriented text: Presents complete, practical information on small animal internal medicine Provides the background physiology required to understand normal versus abnormal in real-world clinical settings Includes general medicine topics not covered in other internal medicine books Focuses on information that is directly applicable to daily practice Features podcasts and continual updates on a companion website Carefully tailored for the needs of small animal practitioners and veterinary students, Clinical Small Animal Internal Medicine is an invaluable, reader-friendly reference on internal medicine of the dog and cat.
Salivary Gland Diseases

Salivary Diagnostics surveys one of the most exciting areas of research in oral biology. Regarded as the mirror of the body, saliva has immense potential to yield real clinical improvements in our ability to diagnose, and hence treat, oral and systemic conditions. The composition of saliva and other oral fluids reflects the tissue fluid levels of therapeutic, hormonal, and immunological molecules, as well as the presence of markers for systemic and oral disease.