

Oral Morphology

Research the formation and absorption mechanism of bones.

I am responsible for the microscopic anatomy lectures and training of the cells, tissues and organs constituting the human body, the lectures and training for the gross anatomy, and the lectures and training on the generation and microscopic structure of teeth and periodontal tissues for the education at the Dental School. The research consists of 1) the investigation of the formation and absorption structure of bone and their relationship with hormones at a microscopic level, 2) the investigation of the mechanical force and bodily factors involved in the formation of bone and 3) the regenerative research of the bone by introduction of the genes to promote bone formation into cells and tissues. In these researches, various methods ranging from light and electron microscopes to immunohistochemistry and molecular biology methods are used.



Professor Toshio Yamamoto
Nigata Prefecture Shibata High School graduate
Graduate of 1969

Oral Function Anatomy

Approaching stomatology through brain research

Oral cavity controls the combination of bones and muscles, with nerves and blood vessels spread everywhere for the delicate senses and movement in order to feed, breathe and produce sound. Students learn the oral cavity and the entire body structure that supports it in the class. The class starts with 2nd year students and there is a training to observe the function of the whole body in the winter of the 3rd year. In the research, we investigate how the brain processes the sensory information from the oral cavity. We are researching the nerves that transmit the oral cavity sensory information and the mechanism for the disorder of the brain such as the pain with unknown cause such as trigeminal neuralgia and TMJ arthrosis caused by malocclusion.

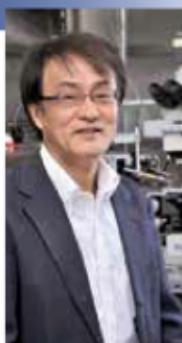


Professor Tomosada Sugimoto
Osaka Sumiyoshi High School
Graduate of 1970

Oral Physiology

Understanding the movement of the mouth with neuroscience

Physiology is a study to understand the function of the body. The target of the study can range from individual cells, an individual, and also the activity pattern at a social level. Especially in Dental School, various movements of the mouth and its mechanism are studied after having understood the function of the entire body. In the research, the role of the brain is given the focus in order to understand the movement of the mouth. The research includes the senses of the mouth (taste and pain), salivation and also meals and obesity. These researches are conducted in cooperation with the people involved in clinical dentistry. Our research is contributing to the maintenance of health and increasing the QOL (Quality of Life).



Professor Ryuji Matsuo
La Salle High School
Graduate of 1971

Oral Biochemistry

Investigate the biomolecular network and open the path for next generation in dental care.

The biochemistry of today is a boundless study that spans molecular biochemistry and genome biology. In our field, we provide classes where students can learn the molecular basis of life and the biochemistry focused on dental care. Also, practices which are active learning programs, DNA diagnosis, a leading edge technology, and training where students can experience gene manipulation are prepared. As for the research, as a base for the world-leading CCN family molecules research, we are continuing a joint research on a global basis. This molecule manipulates various biomolecules in a network, and is considered to be very important and deeply related to intractable diseases such as tissue regeneration, cancer, and it is hoped that it can be applied to regenerative medicine.

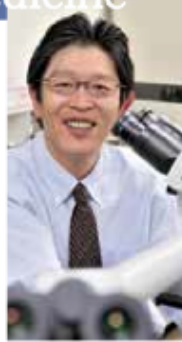


Professor Satoshi Kubota
Viator Gakuen Rakusei High School
Graduate of 1980

Oral Pathology and Medicine

Diagnose diseases, understand the pathological mechanism using various methods

Humans contract various diseases, treatment is impossible without knowing the cause of disease (etiology) or its origin and progress (pathology). Pathology is a study of the cause and progress of a disease and plays an important role in the diagnosis of the disease (pathological diagnosis) the patient has contracted. Students learn various diseases that occur in the body in the lectures and use the microscope to observe and understand the lesions in the training. In the research, we try to discover the pathological mechanism of oral tumor, and to regenerate oral tissues. I do research on tissue regeneration and tumor pathology using stem cells, tumor pathology based on histomorphological and molecular biological method.



Professor Hitoshi Nagatsuka
Kaisei Gakuen H.S.
Graduate of 1981

Microbiology

Investigate the battle between microorganisms and the body from molecular level

We have numerous microorganisms in our body and they protect our body as normal bacteria flora. However, some of the microorganisms act as agents to cause infectious disease. The representative infections in oral cavity are dental caries and periodontitis. In oral microbiology, I conduct lectures and training related to viruses that cause diseases, microorganisms such as bacteria and fungi, the immune system that protects the body against infection and the mechanism for causing infection. We conduct a wide range of research on the detection method for pathogens, establishment of diagnostic methods for infectious diseases, development of treatments such as new antibiotics and new preventive methods using vaccines.



Professor Naoya Ohara
Osaka Ichioka High School
Graduate of 1983

Dental Pharmacology

Scientifically understand the mechanism of drugs and strive to create new drugs!

Pharmacology is a field of study to comprehensively understand the impact and efficacy of medication on the body as the "principle of medication" from the molecular to individual level and is the scientific basis of drug treatments. We focus on educating students to accurately decide by themselves, and training them to be dentists who can provide reliable and safe pharmacological treatment. Also, basic medical research and new medical development are underway to establish new treatment strategy for cancer and various diseases in the field of oral cavity field



Professor Kenichi Kozaki
Tokai High School
Graduate of 1983

Biomaterials

Create new material and technique in anticipation of the future of dental care

In the field of biomaterial, there are developments for the medical materials and medical technology that play an important role in dental care. Conversely, it is possible to create new dental care by developing new materials and technology. In recent years, there has been progress in incorporating various fields and knowledge such as mechanical and electronic engineering, cell biology, molecular biology and so forth. As a result, there is an increase in the opportunity to create the next generation of materials and technology unseen thus far. Join us and create new dental care together to contribute to the happiness of the people of the world.



Professor Takuya Matsumoto
Takatsuki High School
Graduate of 1989

Operative Dentistry

Aim for comprehensive dental care consisting of bonding, aesthetic, regenerative dentistry

Our class provides the clinical activity and research in the operative dentistry. I conduct lectures on operative dentistry and clinical training using the leading simulation system to the dental students. I conduct lectures on operative dentistry and clinical training using the leading simulation system to the dental students.

Dental caries treatment using aesthetical restorative material, treatment for hyperesthesia and endodontic treatment are done in the clinical activities. We do research on the development of treatment to regenerate the dentin and the dental pulp and new dental caries treatment using aesthetical restorative material to be bonded to the tooth.



Professor Masahiro Yoshiyama
Osaka Ibaraki High School
Graduate of 1976

Periodontal Science

Train medical professionals to support life-long health of the mouth and the whole body from the perimeter of the teeth

Bacteria are ever-present inside the mouth and cause chronic infections and inflammations (periodontal and endodontic diseases) on the periphery of the teeth. We conduct research and education on their pathology and control.

It has been possible to think of periodontics as a part of internal medicine since there is a deep relationship with the health of the whole body. And we are expanding the research with the researchers in medicine and pharmacology fields regarding the metabolic syndrome and others.

We are expanding the medical dental collaborated medical care in hospitals and local governments, and students can learn unique interdisciplinary practical education, research and clinical lessons aimed at SoLA (Soft-Landing Aging). Do a search on "Okayama Periodontal Science" and learn more about us!



Professor Shogo Takashiba
Hiroshima Prefecture Fukuyama Seishikan High School
Graduate of 1980

Oral Rehabilitation and Regenerative Medicine

Develop new prosthodontics using molecular biological method based on clinical facts

Our class provides lectures and training on implant dental prosthetics and crown bridges. Prosthodontics aims to recover the function and form disabled or deprived due to the loss of teeth or tissue in the mouth. There will be new methods to restore the lost part through teeth and mouth tissue regeneration utilizing bioengineering in the future. We were successful in growing regenerative teeth and we have high hopes for the future. On the other hand, we are actively involved in the development of advanced treatment for TMJ arthrosis, orofacial pain, sleep apnea syndrome, advanced implant treatment and clinical application of bonding



Professor Takuo Kuboki
Okayama Prefecture Ihara High School

Occlusal and Oral Functional Rehabilitation

Engage the super aging society with "Enjoy eating" strategy

Our class conducts lectures and training on dentures such as full and partial dentures. Actual treatments consist of a variety of treatments including ordinary dentures, implants, and treatment for eating and swallowing disorders, dysarthria, maxillofacial prosthetics, TMJ treatment, etc. And, we are conducting research on the relationship between dentures and the brain function, biochemical research on the soft and bony tissues of oral cavity, bioengineering, eating and swallowing disorder, dysarthria and TMJ arthrosis in order to achieve "Enjoy eating" by treatment.

Take a look at our HP, (<http://www.cc.okayama>



Professor Shogo Minagi
Okayama Prefecture Okayama Sozan High School

Orthodontics

Let's learn the latest orthodontics from aesthetics and functional aspects

Orthodontic treatment not only solves the functional problem by fixing the teeth alignment but also aims to satisfy the patient regarding the aesthetic problem. In order to achieve this, in addition to the traditional orthodontic treatment, the latest treatments using anchor screws, devices from the backside, bone lengthening and so forth are used together to meet the needs of the patient. Also, "Advanced Cleft Lip and Cleft Palate Center" was established in collaboration with the Medical and Dental Schools and to provide a long-term comprehensive treatment from the birth to adulthood.



Professor Hiroshi Kamioka
Tokushima Prefecture Jonouchi High School
Graduate of 1983

Oral and Maxillofacial Reconstructive Surgery

Quest of oral science and oral surgical care practice based on such quest

The oral cavity has important functions to keep a person alive such as chewing, swallowing and breathing and it executes complicated movements in harmony with various organs such as the jawbone that supports the teeth, the surrounding muscles, nerves and others. And there are many diseases (congenital abnormality, growth abnormality, tumor, inflammation, etc.) in each of the comprising organs. Oral surgery is a field that treats various diseases that occur in the oral cavity, and our oromaxillofacial reconstructive surgery, especially, is a clinical field that specializes in the recovery and reconstruction of the oral function and form. These kinds of diseases are all diagnosed and treated with the knowledge based on life science and our class aims to pursue the science related to the oral cavity (Oral Science) and we put our efforts in training dentists who have these scientific insights and can be active in various areas.



Professor Seiji Iida
Nara Prefecture Nara High School
Graduate of 1979

Oral and Maxillofacial Surgery and Biopathology

Oral surgical care aimed at "Save Your Life, Keep Your Smile"

This class teaches oral surgery (pathological) in the clinical field. Oral surgery is specialized in the diagnosis and treatment of oral maxillofacial area such as tooth extraction and implants, fracture and deformation of the jaw, oral mucous membrane disorder, oral cancer and jawbone tumor and TMJ arthrosis. We handle many diseases but new medical care cannot be found without the understanding of the cause, let alone the diagnosis and treatment. Clinical education focuses on learning the diagnosis and treatment ability based on scientific bases. Students can acquire extensive knowledge in the clinical training in addition to outpatient care by training in the same facility as the medical school with the hospitalized patients and observing surgeries. See HP for details.

(<http://okomfswb.ccsv.okayama-u.ac.jp/index.php>)



Professor Akira Sasaki
Okayama Prefecture Okayama Daianji High School
Graduate of 1975

Oral and Maxillofacial Radiology

Open up the dental radiology field with image diagnosis and oral cancer conservative treatment as the theme

This class conducts lectures and training of the dental radiology. Diagnosis is necessary for a medical care, and image diagnosis comprises very large weight in a diagnostic process. The abundance of the types of medical imaging equipment and the quality improvement are remarkable nowadays. We give instructions so that students can understand and utilize the equipment. Also, radiotherapy using small radiation source for oral cancer for preservation of aesthetics and functionality is done and we strive for the conservative treatment of oral cancer. In our research, we aim for improvement in noninvasive qualitative diagnosis ability by using dynamic MRI so that we can understand the chronological hemodynamics in the lesion. There is also progress in molecular imaging and research into individual discrimination.



Professor Junichi Asaumi
Ehime Prefecture Imabari Nishi High School
Graduate of 1977

Oral Health

Create healthy people, realize healthy society

It is the pleasure of the medical profession to help people in need. On the other hand, it is also the responsibility of the medical profession to have as many people as possible who can "be healthy as long as possible." That is what preventive dentistry is.

Through the lectures we think about the social issues such as the environmental problems, health disparity, medical economics and so forth. Students learn the prevention of dental disorders in the clinical activity. Our research is involved with various aspects of prevention such as teeth alignment, salivation, and nutrition. The most distinctive activity is probably our outdoor activity. We pursue health of the overall society through group checkups and health education at health centers, schools, workplaces and local communities and through a large-scale epidemiological survey



Professor
Manabu Morita
Hiroshima University
affiliated Fukuyama
High School
Graduate of 1976

Pediatric Dentistry

Pediatric dentistry aimed at creating healthy oral environment for children

In the field of pediatric dentistry, students learn the knowledge and skill regarding the prevention and treatment of dental diseases in order to maintain healthy condition of the oral environment that changes with the growth and development of children.

The goal of pediatric dentistry is the completion of healthy rows of permanent teeth. Students learn the treatment of cavities, traumatized teeth and occlusal guidance for teeth alignment over the long term from primary dentition to permanent dentition. We conduct research on cavity causing bacteria with a focus on molecular biology research. Especially, we are pursuing the understanding of the mechanism for the formation of oral biofilm (dental plaque)



Professor Michiyo
Nakano
Yamaguchi Prefecture
Ube High School
Graduate of 1986

Dental Anesthesiology and Special Care Dentistry

Safe, reliable, comfortable dental care to those who need help

Japan is a super aging society. There is an increase in the number of patients with diseases such as high blood pressure, heart diseases, diabetes. It has become more and more important to provide safe, reliable and comfortable dental care to these types of patients and construct a mature local medical system by which people who need medical support can receive full dental care in the local community.

This field is a clinical dental research field that specializes in special support dentistry with the collaboration of Dental Anesthesia and the "Special Needs Dentistry Center" to study scientifically the "reliability," "safety" and "comfort" during dental care.



Professor Takuya
Miyawaki
Hyogo Prefecture Ono
High School
Graduate of 1980

Comprehensive Dentistry

Training of dentists who pursue constant improvement in the quality of providing dental care

In our class we conduct lectures on the basic necessary items for the dental students involved in the dental medicine. Also, in the hospital, I am in charge of the clinical training that is mandated by the Dentists Act right after students earns the national dentist license, and I give instructions on the professionalism as a medical profession, basic medical care skills and the ability to improve the knowledge and skill by learning by themselves throughout their lives. We hope to teach the students the attitude to always pursue improvement in the quality of dental care they provide through this type of education, clinical activity and the related research results and to train them as dentists to play an important role in the future.



Professor Yasuhiro
Torii
Osaka Takatsu High
School
Graduate of 1975



Masahiko Egusa Special Needs Dental Center Head of the Center, Professor (Okayama Prefecture Okayama University affiliated Yasudera H.S. Graduate of 1981)

Contribute to the QOL improvement of the oral cavity for the local handicapped children and seniors

Special Needs Dental Center provides the cure, care and rehabilitation to "those in need of special support" in dental care who have various physical, mental and psychological difficulties or disorder in collaboration with other fields such as medical, health and welfare. Also, we are currently developing the "clinical pass in cooperation with the local area" as the first step in building of a system to realize seamless care for many people ranging from infants to seniors living in the area. In this way, the center aims to be the front runner of the general medical care, not limited to dental care, collaborating with the local region in close connection with the livelihood of the people.

In our center, there are special support dental treatment department (handicapped children dental care) and eating and swallowing rehabilitation department. In the special support dental treatment department, we are one of the few hospitals which perform dental care to the handicapped under anesthesia in Chugoku and Shikoku region with the cooperation of the dental anesthesia department. Also, we practice the world famous TEACCH program for autism related problems. On the other hand, the eating and swallowing rehabilitation department has many patients referred from the medical department and has become a cornerstone of the collaboration between medical and dental departments. Those with eating and swallowing disorder all hope to eat meals together with their families and friend at home and school and to enjoy the good taste of food with their mouth. Our department supports the medical care and health of the oral area of mainly those with disabilities and their and dietary lives including their families.