

ACADEMY OF ORAL PATHOLOGY & LABORATORY MEDICINE
(UNDER THE AEGIS OF PRACTICING ORAL PATHOLOGISTS AND MICROBIOLOGISTS ASSOCIATION)

About Academy of Oral Pathology and Laboratory Medicine (AOPLM)

- Oral Pathology (also known as oral and maxillofacial pathology/head and neck pathology) is a specialized field of pathology dealing with the diseases of oral cavity and its associated structures (i.e., teeth, tongue; bony tissue [maxilla and mandible]; joint [temporomandibular joint]; lymph nodes; nerves; structures in neck and blood vessels of the ear, nose and throat [pharynx and larynx]). The practice of oral pathology & microbiology includes diagnosis of oral and systemic diseases using clinical, radiographic, microscopic, hematological biochemical, microbiological, immunological, ultrastructural or other molecular/genetic examinations.
- Laboratory Medicine, is a clinical science and discipline, devoted to the quantitative measurement, or qualitative assessment of any substance that can be assayed in any type of biological fluid of any animal species, thus including humans, for either medical or research purposes. The results of these measurements are translated into actionable information for improving the care and/or maintaining the wellness of both a single individual and an entire population. Laboratory Medicine thus, is the application of 'Medicine' at the laboratory level. It deals with all the necessary investigations required for the diagnosis and management of patients. It includes selection, operation, and interpretation of diagnostic testing that uses primarily the specimens from patients, and contributes in clinical management, in addition to administrative, financial, teaching and research activities of the department.
- Academy of Oral Pathology and Laboratory Medicine (AOPLM) was constituted by Practicing Oral Pathologists and Microbiologists Association (POPMA) in 2023 to impart quality training in oral pathology and laboratory medicine to the members of POPMA. Currently, it's offering observership and fellowship course based on the duration of the course.
- Fellowship course is a module based distance education programme which includes online modules and contact sessions including lectures, seminars and practical sessions. Fellowship course follows a detailed curriculum and provides extensive theoretical knowledge (mostly distance education) and specific practical skills (laboratory hands-on) in oral pathology and laboratory medicine along with basic knowledge required in associated subjects.
- AOPLM Fellowship certification requires assessment and theoretical knowledge through conduct of practical examination on completion of the training and, if found proficient, shall award enrolled candidates with the Fellowship/Observership by the Academy of Oral Pathology and Laboratory Medicine.

The vision of the academy is:

- To impart training of qualified professionals in niche areas of diagnostic oral pathology and laboratory medicine.
- To support excellence in oral pathology and laboratory medicine and in doing so, enhance patient outcomes.
- Improving oral and general health of the community through specialized training of oral pathology professionals, translational research and improving quality of diagnostic centres.

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AOPLM (Run by POPMA) invites application for the following course:

Name of the course:

- Fellowship Course in Oral Pathology and Laboratory Medicine
- Observership Course in Oral Pathology and Laboratory Medicine

Purpose and course details:

The course is designed to uplift knowledge and skills in the subject of Oral Pathology and Laboratory Medicine and to impart education to those oral pathologists who desire to have a first-hand experience at centers of excellence that are equipped with state of the art facilities that are in tune with modern advances in this discipline.

Aim of the course:

The aim of this course is to provide the training foundation for those individuals who want to pursue their professional career in the field of Oral Pathology. This additional expertise emphasizes development of additional skills required for the practice of their specialty, including consultation skills and multidisciplinary treatment planning. It has another great vision of providing more expert pathology specialists to the society in order to provide a better quality management of disease for the people even in the lower levels of the community.

Intake:

- Two candidates for Fellowship Course in Oral Pathology and Laboratory Medicine
- Two candidates for Observership Course in Oral Pathology and Laboratory Medicine

Course Duration:

- 4 months for Fellowship Course in Oral Pathology and Laboratory Medicine
- 10 days for Observership Course in Oral Pathology and Laboratory Medicine
- Date of commencement is first working day of August 2023 for fellowship course or a viable alternative as mutually agreed upon by the candidate and the management of AOPLM.

Eligibility criteria:

- The candidate should possess MDS degree in Oral Pathology & Microbiology/PG diploma in Oral Pathology & Microbiology.
- The degree/diploma should have been obtained from an institution recognized by Dental Council of India (DCI).
- Candidate should have valid DCI/state dental council registration certificate
- There is no age limit.

Training Centers:

- MG Diagnostics, Hisar
- Tohana Manglam Diagnostics, Tohana, Dist. Fatehabad

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Stipend: No stipend will be paid to the candidate.

Boarding/Lodging:

- Accomodation will not be provided.
- Meal facilities are available nearby the institute, on payment at prescribed rates.

Course fee:

- Fellowship Course in Oral Pathology and Laboratory Medicine
- Observership Course in Oral Pathology and Laboratory Medicine

Submission of Application:

Eligible candidates may send their application to Dr. Bhuvan Nagpal, Director, Academy of Oral Pathology and Laboratory Medicine, H. No. 1021, Urban Estate – II, Hisar – 125001, Haryana (India). Application can be submitted by post and by email (dr.bhuvannagpal@gmail.com).

For any query, please contact on 7027038190, 8168029497 (What'sApp available)

Copies of documents to be submitted are:

- Duly filled application form
- Attested copy of Matriculation/10th
- Attested copy of Higher Secondary Certificate/12th
- Attested copy of BDS & MDS/PG Diploma mark sheets and degree/diploma certificates
- Attested copy of registration certificate with DCI/State Dental Council
- Experience certificates
- Attested copy of Employer's certificate, if you are in service
- Recent passport size two photographs
- ID proof (copy of Driving License/passport/Aadhar card)
- CV with two detailed references
- Recommendation letter by previous employer/mentor/advisor/PG guide/any doctor who knows the credentials of candidate personally

Selection of candidates:

Through direct interview following screening of the application and bio-data of the applicant

Requirements for completion of the course:

To become eligible for the award of certificate, the candidate should fulfill the following requirements:

- Should put in atleast 90% attendance. There is no condonation for lack of attendance.
- Candidate will be entitled to 10 days leave during the entire period of course.
- No exemption shall be given during the period of study
- Tests and assignments will be conducted. All tests and assignments should be attempted with minimum score of atleast 60%.

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- Should conduct at least two seminars and one journal club during the course tenure
- Should present or publish at least one original research paper/case report on subject of choice during the course tenure
- Should assist in day to day departmental activities in the area of posting as and when required.
- Every candidate shall maintain a log book

Examination and certification

Formative assessment/Internal assessment of the candidates by the faculty (100 marks) will be done based on the following objectives of the course:

- Attendance
- Log book maintenance
- Practical and reporting skills
- Case based discussions
- Performance in journal club and seminars

Summative assessment:

- 5 Slide reporting and case discussion (10x5 =50 marks)
- Hematology & clinical pathology case discussion (25x2= 50 marks)
- Clinical Biochemistry along with interpretation of test results (50 marks)
- Serology & Microbiology (25x2 =50 marks)

To summarise

- Practical = 200 marks
- Internal assessment = 100 marks
- Total = 300 marks

Grand viva-voce & practical examination will be conducted at the end of the training programme.

Certification: Certificate will be issued at the end of the successful completion of the course.

Award of certificate

A Certificate of successful completion of the course will be awarded by Academy of Oral Pathology and Laboratory Medicine (AOPLM) duly signed by the Director of the Academy.

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Disclaimer:

- This Fellowship or Observership certificate issued by AOPLM is not an academic degree and is not recognized by the Dental Council of India (DCI)/National Medical Commission (NMC)/UGC and is not an additional registerable qualification.
- This certificate does not have affiliation to any other academic institution or university, hence claims to this effect will not be valid.
- It is a certificate of professional training in Oral Pathology and Laboratory Medicine.
- The certified professionals should abide by the Code of Ethics of the Dental Council of India, published in the Extraordinary Gazette of India dated 27th June 2014 in pages 17-24.
- AOPLM or POPMA does not guarantee any kind of job after the completion of this course.

Specific competencies and course syllabus of the Fellowship/Observership Course of AOPLM:

At the end of the Fellowship/Observership course in Oral Pathology and Laboratory Medicine, the candidate should acquire knowledge and competence in conducting relevant procedures in:

- Histopathology related to oral and maxillofacial region
- Cytopathology related to oral and maxillofacial region
- Routine Hematology
- Clinical Pathology
- Routine Clinical Biochemistry & Immunoassay
- Infectious disease serology and Immunology
- General & Oral Microbiology
- Molecular diagnostics as related to the discipline of lab medicine

The candidate should be able to:

1. acquire knowledge about the normal body systems and pathological basis of disease
2. understand and identify morphological disorders in tissues and cells from test results
3. acquire knowledge about how and why the use of histological, cytological, biochemical and immune mediated techniques can be helpful in the diagnosis and management of oral and general/systemic diseases
4. acquire knowledge about the rationality and relevance of choosing diagnostic investigations (biochemical/hematological/microbiological/immunological) in the management of oral and general/systemic disorders
5. understand the specific biochemical principles which are being used to measure to determine test substances
6. acquire competence to perform the specified investigations in oral & maxillofacial pathology, biochemistry, microbiology, pathology, hematology, immunology and molecular biology at the operational level with a high order of accuracy
7. interpret the test results in the context of clinical setting and with the knowledge of reference intervals/abnormal values/critical alert values

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8. coordinate laboratory and hospital information system (LIS & HIS) with validation of test results on time
9. evaluate the medical validity of the test results i.e. quality of analysis in comparison to the medical problem
10. ensure routine conduct of EQAS external quality assurance program & internal quality control programs and take corrective steps, when needed
11. acquire knowledge on medical auditing of individual and panel of lab investigations
12. acquire knowledge of various kinds of lab auditing methods as per ISO 15189
13. give priority status to different tests in case of emergency
14. design and conduct research in the discipline of lab medicine & oral pathology
15. acquire knowledge and conduct budgeting and costing of all lab tests
16. acquire knowledge of the underlying principles and design of important lab instruments, their use and annual maintenance (AMC)
17. acquire knowledge on different kinds of safety measures in the laboratory
18. acquire knowledge on infection control programs including antibiotic stewardship and response to epidemics
19. supervise and train technical staff of the department
20. acquire knowledge about management of a large multidisciplinary lab services program

Note: Majority of theoretical knowledge will be through self-learning, though part of it would also be through interaction with lab staff. Practical knowledge will be through observation and one-to-one interaction. Additional knowledge will be through the academy's planned teaching programs.

Course syllabus:

❖ Histopathology related to oral and maxillofacial region

1. Biopsy and gross specimen handling
2. Tissue processing: manual and automated
3. Common histopathological staining
4. The levels of competency expected from the candidates in the diagnosis of diseases which comprise the main area of a specialist in Oral Pathology are following:
 - a. Oral cavity
 - b. Major and minor salivary glands and other mucosal glands
 - c. Jaws, craniofacial bones and Temporomandibular joint
 - d. Ear, sinonasal tract and nasopharynx
 - e. Pharynx and larynx
 - f. Facial and neck skin
 - g. Neck and thyroid gland
5. Microscopy of common oral and maxillofacial lesions and diagnosis from H&E stained histopathology slides of the following entities:
 - Odontogenic and non-odontogenic cysts of the Head & Neck region
 - Odontogenic and non-odontogenic tumors of the oral and maxillofacial region

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- Inflammatory (reactive and granulomatous), pre-neoplastic (oral potentially malignant disorders) and neoplastic (benign and malignant epithelial and connective tissue) disorders of the oral mucosa
- Soft tissue lesions and tumors of the Head & Neck region
- Infections (Bacterial, Viral and Fungal) affecting the Head & Neck region
- Inflammatory, cystic and neoplastic disorders of the major and minor salivary glands and of sinonasal, pharyngeal and laryngeal minor glands
- Fibro-osseous and cement-osseous lesions of the jaws and craniofacial bones, Paget's disease of bone and giant cell lesions of bone including cherubism
- Benign and malignant neoplasms of bone and cartilage
- Dermatopathology: Mucocutaneous and vesiculo-bullous lesions

❖ Cytopathology related to oral and maxillofacial region

1. Observe FNAC procedure, processing, staining and microscopy
2. Perform FNAC and interpretation of stained cytological slides
3. Perform FNAC from cervical lymph nodes, swellings of neck, thyroid, parotid, submandibular, submental, postauricular region, preauricular region, scalp, temporal, infratemporal, supraclavicular, skin, oral cavity.
4. Microscopy of common Head & Neck lesions are non-specific/reactive/necrotizing lymphadenitis, granulomatous inflammation (tuberculosis), abscess, metastatic carcinoma, soft tissue tumors, squamous cell carcinoma, epidermal inclusion cyst, thyroglossal cyst, colloid/nodular goiter, thyroid neoplasms, lipoma, pleomorphic adenoma, mucoepidermoid carcinoma, Warthin's tumor, adenoid cystic carcinoma, lymphomas (Hodgkin's/NHL), sialadenitis, fibroma

❖ Routine Hematology

1. Collect, transport and processing of blood samples for different hematological investigations in specified vial with adequate amount of specific anticoagulant.
2. Perform manual methods of blood cell count, make peripheral smear and its staining.
3. Perform hematocrit, reticulocyte count and measure ESR (Westergren and Wintrobe methods)
4. Interpretation of hemogram and histogram from automated blood cell counter
5. Examine and interpret stained peripheral blood smear and to arrive at possible diagnosis of disorders of red cells, white cells and platelets, sepsis and drug effects.
6. Demonstrate hemo-parasites: malaria and microfilaria
7. Investigate in detail the etiology of anemia: nutritional, hemolytic, hypoplastic and other causes
8. Select investigations and perform tests for nutritional anemia
9. Select investigations and perform tests for hemolytic anemia
10. Demonstrate sickle cell, G6PD deficiency and identify cold agglutinin
11. Diagnose Thalassemia and conduct further study to classify it
12. Investigate for, and diagnose different types of Leukemia with cytochemistry, immune-phenotyping and genetic analysis

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13. Investigate leucocyte and platelet functions (platelet adhesion, aggregation and release defect).
14. ABO & Rh blood grouping
15. Investigate and diagnose bleeding disorders by screening coagulation tests (BT, CT, PT, APTT, TT, platelet count, clot retraction, d-dimer for DIC work up
16. Investigate prothrombotic state: assay of anti-thrombin III, factor V-leiden, protein C
17. observe bone marrow aspiration and biopsy

❖ Clinical Pathology

1. Conduct physical, chemical and microscopic examination of urine, synovial fluid from TMJ, saliva, sputum, semen, stool and interpret their findings. If necessary, conduct microbiological examinations, to arrive at possible diagnosis
2. Sputum examination for acid fast bacilli and gram positive bacteria
3. Perform and interpret pregnancy test in urine
4. Estimation of fecal fat and reducing sugar for diagnosis of malabsorption

❖ Routine Clinical Biochemistry & Immunoassay

1. The candidate should be able to take corrective steps while testing hemolysed, hyperlipidemic and hyperbilirubinemic serum.
2. Evaluate and interpret lipid profile, liver functions, renal functions and endocrine functions
3. Select and perform investigations for lab diagnosis of diabetes mellitus, metabolic syndrome, metabolic bone disease, hepatitis and other diseases of liver and kidney
4. Diagnose metabolic/respiratory/mixed acidosis and alkalosis
5. Identify the causes of hypo and hypernatremia, hypo- and hyperkalemia and hypo- and hypercalcemia.
6. The candidate should be able to carry out biochemical investigations of the following:
 - a. Sugar, urea, creatinine, bilirubin, total protein, albumin, globulin
 - b. Serum enzymes (SGOT, SGPT, amylase, lipase, ALP)
 - c. Serum electrolytes (Na⁺, K⁺, Cl⁻, Ca²⁺)
 - d. Lipid profile: total cholesterol, HDL- cholesterol, LDL-cholesterol, triglycerides, VLDL
 - e. Hormones: TSH, T3, T4, cortisol, FSH, LH, GH, Prolactin, testosterone, estradiol
 - f. Vitamins (vitamin D, B12 and folic acid) and trace elements
 - g. Cardiac markers: troponin-I, troponin-T, CPK-MB, LDH, myoglobin
 - h. Tumor markers: colonic cancer (CEA, CA19.9), pancreatic cancer (CA19.9), ovarian tumor (CA 125), hepatic cancer (AFP), trophoblastic tumor (Beta HCG)
 - i. Plasma electrophoresis for investigation of cause of hypoproteinemia
 - j. Serum electrophoresis for 'M' spike
 - k. Hemoglobin electrophoresis for investigation of hemoglobinopathies
 - l. Urine electrophoresis for specific protein

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❖ Immunology and Infectious disease serology

1. Perform basic immunological techniques including immunoassays, immune-precipitation, immune-fixation, different kinds of ELISA, chemi-luminescence analysis
2. Serological techniques: CFT, different types of agglutination reactions, IHA
3. Perform and interpret rapid diagnostic tests (malaria antigen, widal, S.typhi, Dengue IgG & IgM, VDRL, Ab to T. pallidum, chikungunya, HIV, HbsAg & Anti-HCV)
4. Measure and interpret CRP and RF
5. Estimate level of complements
6. Estimate cytokines in blood and fluids
7. Evaluate collagen vascular disorders, autoimmune disorders, immune deficiency status
8. Apply lab approach for investigations of various hypersensitivity and allergic disorders

❖ General & Oral Microbiology

1. Demonstrate microbes by using common stains like Gram, Giemsa, Albert, AFB stains and India ink preparation by means of microscopic procedures
2. Prepare culture media and inoculation of the sample specimen in the media and recording the outcome
3. Conduct drug sensitivity tests in culture
4. Perform biochemical tests for microbial identification and their serotyping
5. Perform and interpret the markers of different kind of viral hepatitis
6. Diagnose tuberculosis
7. Perform and interpret TORCH screening
8. Investigate the infections, infestations and opportunistic parasites in immune-compromised host
9. Identify common mycotic organisms by microscopy and special stains

❖ Molecular diagnostics as related to the discipline of lab medicine

1. Set up of a molecular diagnostic lab
2. Extract DNA & RNA from cell homogenate by manual and automated methods
3. Perform nucleic acid amplification techniques, PCR, RT-PCR, LAMP

Skill of reporting the result of investigations

- ❖ Acquire the skills for integrative reporting taking consideration of:
 - a. clinical context and results of all chemical, hematological and microbiological investigations of the patients sent to the lab
 - b. Reference interval of values
 - c. The specificity and sensitivity of the methods
 - d. Prevalence of disease in defined populations
 - e. Positive and negative predictive value of the test
- ❖ Develop the skill of communication of the result to the patient and to clinical colleagues
- ❖ Advise further series of investigations
- ❖ Maintain confidentiality of the report
- ❖ Counseling of patients
- ❖ Develop the skill of error-disclosure