Imalab laboratories were established in 1995 in Zlin, which is situated in the east of the Czech Republic. Our laboratories are amongst the most highly regarded facilities in the Czech Republic. We provide a comprehensive range of services specializing in prenatal screening, chromosomal analysis, and immunoassay testing.

We pride ourselves on the quality and excellence of our work, and our management system is in accordance with the international ISO 15189 standards for clinical laboratories. Each part of the laboratory is managed by a highly qualified professional in their respective fields.

Today laboratory medicine is the most important source of patient information. It has been stated that 80% of medical decisions are based on laboratory results. We are very aware of this responsibility for our patients and doctors; therefore we put great emphasis on quality and long-term relationships with our clients.

RNDr. Jaroslav Loucky
director
What We Offer ...

The aim of our work is not only a comprehensive service, but also individual specialized procedures if required. A good example of this is the fact that we provide a wide range of tests for IVF centers.


Besides routine laboratory services we have participated in various international studies. In 2011 we successfully completed a two-year joint study with the Women and Infants Hospital, Providence RI, USA, in the field of fetal nucleic acid research in the mother’s blood for use in screening of foetal inborn genetic chromosomal abnormalities. (INFANET STUDY)

Laboratory Equipment and Quality Monitoring

Our laboratories are equipped mainly with systems and devices from the following companies: Roche, Beckman Coulter, Olympus, Perkin Elmer, Thermo a Biometra. Equipment from these prestigious companies is complemented with equipment from other smaller suppliers. Diagnostic equipment with CE IVD mark is used in the vast majority of cases in our laboratories, and if new methods are applied, verification of all procedures is carried out. Quality control is very important for us, not only internal quality control through the BIO RAD (U.S.A.) system, but also external quality control. The following institutions are used for those purposes: SEKK (The Czech Republic), UKNEQAS (Great Britain), ONCOCHECK (France) a RfB (Germany). As far as external quality control is concerned we also work with other prestigious facilities in the Czech Republic, e.g. The Motol Faculty Hospital in Prague and The Faculty Hospital in Brno.

International Contacts and Screening for Foetal Inborn Genetic Chromosomal Abnormalities

We provide a wide range of pregnancy examinations. We offer a full-service of ultrasound and biochemical diagnostics of foetal inborn genetic disorders, through integrated test, together with Prediko a.s., the Centre of prenatal diagnostics and genetics. (www.prediko.cz). For these purposes we also provide cytogenetic test and rapid diagnostics carried out by the FISH method. Our work in this field goes beyond standard practice and we participate in international projects. We also take part in seminars and workshops in Great Britain and the USA, and professors Sir Nicholas Wald and Jacob Canick were among others who have given lectures at our workplace.
Biochemical and Hematological Laboratory

The Biochemical and hematological laboratory is located in Zlín polyclinic. Here, samples are collected from patients requiring examinations in IMALAB, and other laboratories. The laboratory provides primary routine biochemical and hematologic tests. Besides standard procedures, we also provide a wide range of examinations specified for detection and monitoring of hepatic diseases, lipid metabolism examinations and diabetic screening. We also test for and monitor internal inflammation in the body, and recommend treatment. Examination of the coagulation factors and blood cell morphology is provided in the hematology laboratory.

Cytogenetic Laboratory

Here we provide diagnostic examinations of karyotype for egg and sperm donors, for couples with infertility problems and newborn babies with a high risk of chromosomal disorders.

The same determination of chromosomal number and structure is provided (from amniocytes) to pregnant patients who have been selected by screening as positive or are older than 35, or if the foetus has a problem detected by ultrasound. We use a rapid method of determination of trizomia, 21-M Down, 13 - Patau syndrome, 18 - Edwards syndrome. The results are available 48 hours after our receipt of amniotic samples. Trizomias are detected by the FISH method.
Laboratory of Molecular Biology

Established in 2006, it has gradually developed into a first class diagnostic facility with excellent methodology. Thanks to state-of-the-art equipment, and dedicated personnel, our facility is one of the most modern in the Czech Republic. The laboratory specializes in haematological, oncohaematological, pharmacogenetical and genetic disease diagnosis.

Immunoanalytic Laboratory

This laboratory offers routine and specialized examinations of biological material. We carry out a wide range of tests, in endocrinology, thyroid gland testing, osteology, cardiology, detection of different antibodies, tumor and inflammation markers. Recently we have been working closely with reproduction medicine clinics, for whom we provide tests for donor programmes, as well as examinations of couples in the assisted reproduction programme.

We provide detection of analytes in the first and second trimester of pregnancy for prenatal screening purposes, and the results are interpreted in collaboration with Predíko s.r.o. Zlín.

(www.prediko.cz)
Laboratory of Flow Cytometry

This laboratory provides immunological and hematological examinations. We provide measurement of cell immunity parameters—immunophenotyping ratio, lymphocyte subpopulation, reciprocal ratio CD4+ and CD8+ T-lymphocytes, and lymphocyte activation. In the field of haematology, we have at our disposal a wide range of antibodies for screening, diagnostic and checking of haematological diseases, as well as diagnostic examinations for patients with paroxysmal hemoglobinuria, and genetic disorders of trombocytes. For IVF we test the integrity of spermal acrozomes, and for the presence of the intra-acroosomal protein.

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The State Institute for Drug Control issues to company IMALAB s.r.o., registered address U Lomu 638, 760 01 Zlín, ID: 634 68 387

**the authorisation for activities of diagnostic laboratory**
to conduct the following laboratory tests on samples of biological material taken from donors in order to assess the donor’s health condition and donor selection:

1. **HIV type 1 and 2** by means of antibody and antigen p24 determination
2. **HBV** by means of determination of surface antigen (HBsAg) and antibody against nucleocapsid antigen HBV (anti-HBc)
3. **HCV** by means of antibody determination
4. **Syphilis** by specific and non-specific examination
5. **Chlamydia trachomatis** by nucleic acids amplification technique (from urine)
6. **Cytogenetic karyotype** determination from peripheral blood
7. **Evidence of CFTR gene mutations** by nucleic acids amplification technique
8. **Evidence of trombo philic mutations** by nucleic acids amplification technique

Pursuant to Section 19 paragraph 2 of Act No. 296/2008 Coll., as amended, the State Institute for Drug Control imposes on the holder of this authorisation obligation to comply with the conditions under which the authorisation was issued, in particular:

a) the position of qualified person responsible for expert activities of diagnostic laboratory
b) addresses of all sites where the activities are performed are U Lomu 638 (Tomasov), 760 01 Zlín, Czech Republic
phone: +420 577 001 637 fax: +420 577 001 637 e-mail: imalab@imalab.cz
www.imalab.cz