

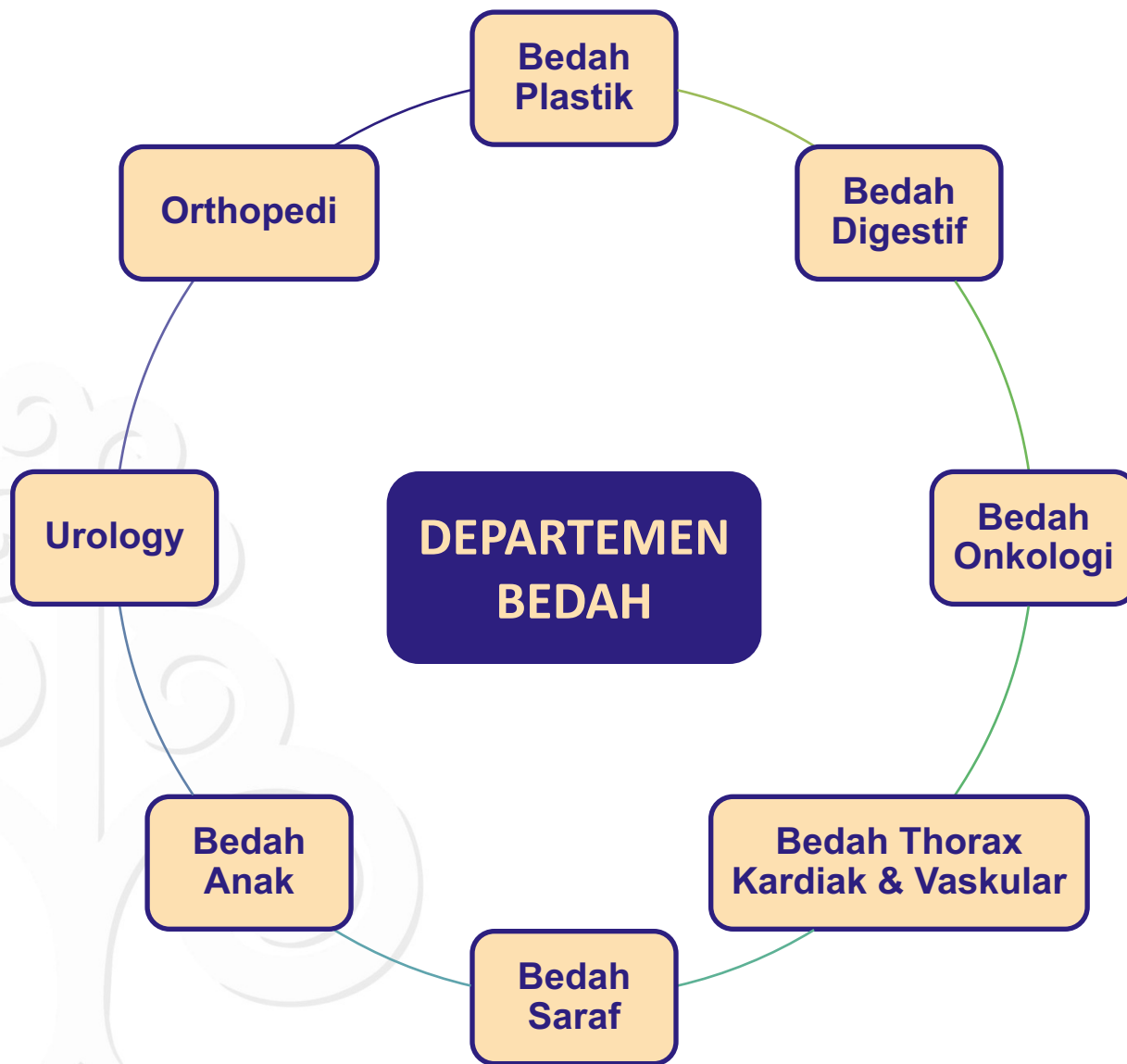


UNIVERSITAS GADJAH MADA

Research Project Overview



**Department of Surgery
Faculty of Medicine Public Health and Nursing
Gadjah Mada University
INDONESIA**





dr. Hendro Wartatmo, Sp.B-KBD
Prof. dr. Marijata, Sp.B-KBD
dr. Agus Barmawi, Sp.B-KBD
dr. Imam Sofii, Sp.B-KBD
dr. Nurcahya Setyawan, Sp.B-KBD
Dr. dr. A. Yuda Handaya, Sp.B-KBD

**Clinical studies:
abdominal trauma,
GI malignancies**

**Molecular study
on colorectal
cancer and HCC**

Current projects:

- Predictive Model For Outcome Of Intervention After Abdominal Trauma In RSUP Dr. Sardjito
- Epidemiology of adult obstructive jaundice in RSUP Dr. Sardjito
- Predictive Model and Outcome in patient after stoma procedures In RSUP Dr. Sardjito
- Predictive Model For Outcome Of Intervention After colorectal cancer In RSUP Dr. Sardjito
- Innovation of surgical recording focus on abdominal procedures
- MTA 3 Gene Expression as Potential Gene Biomarker for Epithelial Mesenchymal Transition (EMT) Study in Colorectal Cancer (CRC) Case
- Combined Fistulotomy and Contralateral Anal Internal Sphincterotomy for Recurrent and Complex Anal Fistula to Prevent Recurrence
- Betatrophin expression in chronic hepatitis c patients: Does contribute to liver injury-linked metabolic syndrome and hepatocellular carcinoma



Dr. dr. Ishandono Dachlan, M.Sc., Sp.B, Sp.BP-RE(K)
dr. M. Rosadi Seswandhana, Sp.B, Sp.BP-RE(K)
dr. Siti Isya Wahdini Sp.BP-RE
dr. Nurardhillah Vityadewi Sp. BP-RE
dr. Rianto Noviady Sp. B. Sp. BP-RE

Current projects:

- Pengaruh Terapi Luka Tekanan Negatif Terhadap Angiogenesis Pada Model Luka Bakar Dermal Dalam Pada Babi Yorkshire
- Studi epidemiologi labiopalatoschisis
- Effect of platelet rich plasma (PRP) to autogenous bone graft
- The effect of platelet-rich fibrin on normal dermal fibroblast proliferation after mitomycin-c treatment
- The effect of 5 α -oleandrin on keloid fibroblast activities.

Experimental study of wound healing

Experimental study on keloid

Negative pressure method for burn injury therapy

Epidemiology and clinical study on congenital craniofacial disorders



Dr. dr. Rochadi, Sp.B-KBA
Dr. dr. Akhmad Makhmudi, Sp.B-KBA
Dr. Nunik Agustriani Sp. B. Sp. BA (K)
dr. Andi Dwihantoro, Sp.B-KBA
dr. Candra Adi Purwadi, Sp.B-KBA
dr. Gunadi Sp.BA Ph.D
dr. Eko Purnomo PhD., Sp.BA

**Clinical study on:
Hirschprung disease
Biliary atresia
Gastroschisis**

**Genetic study on
Hirschprung disease
Biliary atresia
Gastroschisis
Duchene muscular
dystrophy
SARS-CoV2**

Current projects:

- The impact of serum total bilirubin, alanine transaminase and gamma-glutamyl transferase on survival of biliary atresia patients following Kasai procedure.
- Risk factors of preoperative Hirschsprung-associated enterocolitis.
- microRNA-21 expressions impact on liver fibrosis in biliary atresia patients.
- Effect of semaphorin 3C gene variants in multifactorial Hirschsprung disease.
- Combined genetic effects of RET and NRG1 susceptibility variants on multifactorial Hirschsprung disease in Indonesia.
- Outcomes in patients with Hirschsprung disease following definitive surgery.
- The impact of down-regulated SK3 expressions on Hirschsprung disease.
- ICAM1 K469E Polymorphism Effect in Gastroschisis Patients.
- The analysis of DMD gene deletions by multiplex PCR in Indonesian DMD/BMD patients: the era of personalized medicine
- Full-length genome characterization and phylogenetic analysis of SARS-CoV-2 virus strains from Yogyakarta and Central Java, Indonesia
- The Impact of COVID-19 pandemic on pediatric surgery practice: A cross-sectional study



Dr. dr. P, Sudiharta, Sp.B, Sp.BS
dr. Endro basuki, Sp.B, Sp.BS(K), M.Kes
dr. Wiryawan Manusubroto, Sp.B, Sp.BS(K)
dr. Handoyo Pramusinto, Sp.BS(K)
dr. Rachmat Andi Hartanto, Sp.BS(K)
dr. Adiguno Suryo Wicaksono, Sp.BS, M. Sc

**Molecular and
cellular study on
brain injury**

**Molecular cellular
study on glioma**

Current projects:

- Ekspresi TNF alfa dan BCL 2 pada Model Cedera Otak Traumatik dengan Menggunakan Tikus Albino Galur Wistar (*Rattus norvegicus*) yang Diterapi dengan Natrium Laktat Hipertonik
- Korelasi Antara Perubahan Struktur Histopatologis Dengan Ekspresi CD68 Hipokampus Pada Fase Akut dan Kronis Cedera Iskemia Global Otak Sebagai Faktor Resiko Epilepsi Paska Stroke
- Pengaruh Paparan Trauma Listrik Terhadap Gambaran Histopatologi Dan Imunohistokimia Pada Medula Spinalis (Studi Eksperimental Pada Tikus Wistar Galur Murni)
- Association between Ki-67 Labeling index and Histopathological Grading of Glioma in Indonesian Population
- Comparison of Polymerase Chain Reaction-Restriction Fragment Length Polymorphism, Immunohistochemistry, and DNA Sequencing for the Detection of IDH1 Mutations in Gliomas
- Clinicopathological Features and Prognosis of Indonesian Patients with Gliomas with IDH Mutation: Insights into Its Significance in a Southeast Asian Population.
- Neurosurgery Services in Dr. Sardjito General Hospital, Yogyakarta, Indonesia, During the COVID-19 Pandemic

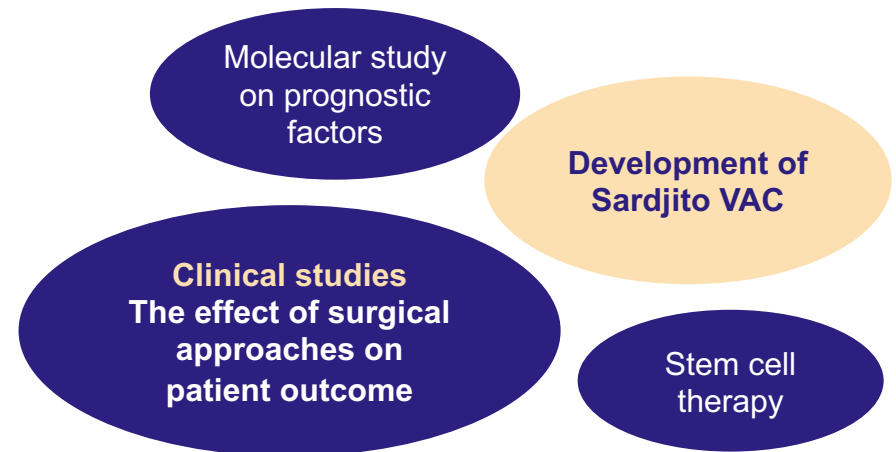


Prof. dr. Armis, Sp.B, SpOT(K)
 dr. Rahadyan Magetsari, Sp.OT, FICS., Ph.D
 dr. Tedjo Rukmoyo, Sp.OT, S.Spine, FICS
 dr. Sugeng Yuwono, Sp.OT,FICS
 dr. Yudha Mathan Sakti, Sp.OT
 dr. Luthfi Hidayat, Sp.OT
 dr. Merizal, Sp.OT(K)
 dr. Yuni Artha Prabowo Putro, Sp.OT
 dr. Aditya Fuad Robby Triangga, Sp.OT
 dr. Hilmi Muhammad, Sp.OT

Current projects:

- Ladybird Homeobox 1 (LBX1) And Estrogen Receptor (ESR) mRNA Expression As Prognostic Factor In Severe Adolescent Idiopathic Scoliosis: A Preliminary Study
- Perbandingan Jumlah Faktor Pertumbuhan (Bmp2), Jumlah Sel (Osteoblast Dan Osteoclast) Dan Persentase Area Penulangan Pada Defek Tulang Hewan Coba (Oryctolagus Cuniculus) Yang Diimplantasi Hydroxyapatite Graft Cangkang Telur Dan Bongros®
- Clinical Outcome In Chronic Spinal Cord Injury Complete Type Treated With Wharton's Jelly Allogeneic Stem
- Serum Cartilage Oligomeric Matrix Protein (Scmp) And Urinary C-Terminal Telopeptide Of Collagen Type Ii (Uctx-Ii) At Baseline As Predictors Of Structural And Clinical Progression Of Knee Osteoarthritis

- Degenerative Lumbal Canal Stenosis Treated With Caudal Epidural Injection And Multilevel Transforaminal Injection
- Perbandingan Bending Strength Dari Pedicle Screw Pada Tulang Humerus Dengan Berbagai Bidang Fiksasi
- Faktor Risiko Prediktor Keluaran Klinis Pada Pasien Yang Dilakukan Transforaminal Endoscopic Spine Discectomy
- Soft Tissue Arthroplasty Fascia Lata In Patient with cominutive Radial Head Fracture
- Manajemen Fraktur Collum Femur Menggunakan Internal Fixation Dengan Multiple Screws Dan Sartorius Muscle Pedicle Bone Graft
- Biodegradable Nanoscale Polyglycolic Acid (PGA) Scaffold Design Using Electrospinning Method For Spinal Cord Injury
- Evaluation Of Serum Alkaline Phosphatase, Lactate Dehydrogenase, C-Reactive Protein, Erythrocyte Sedimentation Rate Level, Histologic Subtype, And Tumor Volume As **A Prognostic Factors** Of Pulmonary Metastases Risk In Osteosarcoma





Dr. dr. Supomo, Sp.B, Sp.BTKV(K)
dr. Haryo Aribowo, Sp.B, Sp.BTKV(K)
dr. Yunanto Kurnia, Sp.BTKV

**Molecular study
of VTE**

**Clinical study
on heart surgery
and vascular
surgery**

Current projects:

- Penanda biologi hemostasis kejadian venous thromboembolism sebagai komplikasi pasca tindakan bedah
- Predictive Model for Secundum Atrial Septal Defect Closure with Pulmonary Artery Hypertension in Adult: When to Close
- Normalization of the right heart and the preoperative factors that influence the emergence PAH after surgical closure of atrial septal defect
- Effect of Pulmonary Vascular Resistance Index on Oxygen Saturation in Patient with Atrial Septal Defect
- The Predictive Factors of Arteriovenous Fistula Maturation in Patients with End-Stage Renal Disease
- Prognostic Factors Influencing Prolonged Ventilation After Open Mitral Valve Surgery
- Normalization of the Right Heart and the Preoperative Factors that influence the Emerge PAH After Surgical Closure of Atrial Septal Defect



ddr. Danarto, Sp.B, Sp.U(K)
r. Untung Tranggono, M.S., Sp.B, Sp.U
dr. Trisulo Utomo, Sp.U(K)
dr. Indrawarman, Sp.U
dr. Ahmad Zulfan Hendri, Sp.U
dr. Tanaya Ginorawa, Sp.U
dr. Sakti Ronggowardhana Brodjonegoro, Sp.U
dr. Prahara Yuri, Sp.U

Molecular study
Bladder cancer,
Prostate cancer
Infertility

**Clinical study
on kidney
transplantation**

Current projects:

- Hubungan Selisih Usia Dan Sex-Matching Donor-Resipien terhadap Kadar Kreatinin Serum Pada Pasien Post Transplantasi Ginjal
- Protective Role of Glutathione and Ascorbic Acid As An Antioxidant in Testis of Hyperglycemia Rat Determined from mRNA Expression of Bax, Bcl2
- Ekspresi mRNA CTLA-4 dan PDL-2 sebagai respon imun dan pengembangan imunoterapi pada pasien dengan kanker kandung kemih
- Eukaryotic Translation Initiation Factor 4E (EIF4E) in Bladder Cancer: at crossroad of inflammation and tumor progression?
- Genomic Alteration of TP53 Tumor Suppressors as Predictive Value in Prostate Cancer
- The expression of miRNA MonoCarboxylate Transporters 4 (MCT4) and Lactate dehydrogenase A (LDHA) of Sertoli Cells in Diabetic: New Insight on Infertility?
- Ekspresi GLUT 1 dan GLUT 3 Dalam Spermatogenesis dan Fertilitas Pada Testis Tikus Dalam Kondisi DM



Prof. Dr. dr. Teguh Aryandono, Sp.B, K(Onk) : surgical oncology, breast cancer genetics

dr. Kunta Setiaji, Sp.B, K(Onk): surgical oncology

dr. Herjuna Herdiyanto Sp.B, K(Onk) : surgical oncology

dr. Suwarjo, Sp.B, K(Onk) : surgical oncology

Dr. dr. Artanto Wahyono, Sp.B : surgery, molecular oncology

dr. Sumadi Lukman Anwar, M.Sc, PhD, Sp.B : breast cancer genetics, epigenetics (microRNA, methylation), epidemiology, surgery

Dr. rer.nat. dr. Dyah Laksmi Dewi, M. Sc. : cancer metabolism, immunoncology, epigenetics (methylation), stem cell

Breast Cancer Epidemiology in Indonesia: Interplay Hormonal and Genetic Factors, Lifestyle, Screening, and Surveillance

Funding : Tahir Foundation (2017-2020) , Multicenter study (UGM-Andalas-Dharmais-NUS

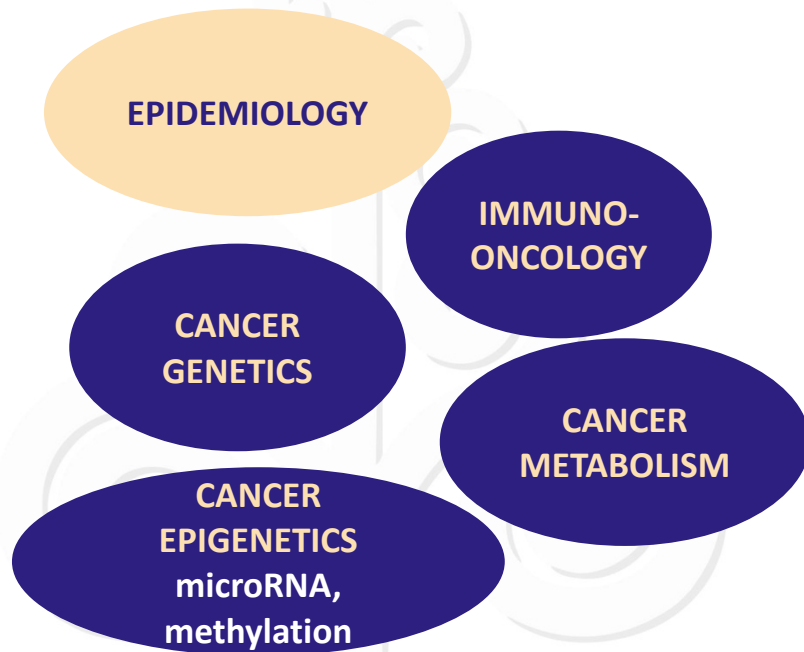
PI : dr. Sumadi Lukman Anwar, M.Sc., Ph.D, Teguh Aryandono, Prof, MD, PhD, Wirisma Arif Harahap, MD, PhD, Samuel J. Haryono, MD, PhD, Mikael Hartman, Ass Prof, MD, PhD

Aims : Revealing epidemiology and biomarkers for diagnosis and targeted therapy using genetic and epigenetic markers

MicroRNA binding sites pada Rs4245739, efek terhadap MDM4 dan TP53: pemanfaatannya untuk biomarker dan terapi target pada kanker payudara

Funding : PTUPT grant (Kemenristek DIKTI) (3 years funding)

PI : dr. Sumadi Lukman Anwar, M.Sc, PhD, Sp.B, Prof. Dr. dr. Teguh Aryandono, Sp.B(Onk)





Pengembangan Obat Berbasis Oligonucleotide-nanoparticles Inulin Conjugated Antibodi Sebagai Suatu Pendekatan Obat Kanker Ovarium Berbasis Targeted Therapy

Funding : PPUPT (2018-2025)

PI : dr. Sumadi Lukman Anwar, M.Sc., Ph.D, Prof. dr. Sofia Mubarika Haryana, M.Med.Sc., Ph.D, Dr. Med. dr. Indwiani Astuti, Dr. dr. Heru Pradjatmo, M.Kes, SpOG (K), Prof. dr. Teguh Aryandono, Sp. B(Onk), Tirta Wardana, S.Si., M. Biotech

Collaborators : Ahmad Rusdan, Ph.D (SCI Kalbe Farma), Dian Pribadi Perkasa, S.Si., M. Biotech (BATAN), Dr. rer. nat. Denny Rahmat, Apt (Univ. Pancasila)

Breast cancer metabolism and immuno-oncology

- The role and regulation of immunosuppressive IDO1 in human breast cancer
- Development of strategy for enhancing the antitumor immune responses in triple negative breast cancer

PI : Dr. rer. nat. dr. Dyah Laksmi Dewi, M. Sc.

Collaborator : German Cancer Research Centre, Heidelberg, Germany

Survey data of COVID-19 awareness, knowledge, preparedness and related behaviors among breast cancer patients in Indonesia.

PI : Teguh Aryandono, Prof, MD, PhD

Determinants of cancer screening awareness and participation among Indonesian women

PI : dr. Sumadi Lukman Anwar, M.Sc., Ph.D,



TERIMA KASIH