



Syllabus 2018/2019														
Description of the course														
Module/Course	Internal Diseases (2)										Group of detailed education results			
											Group code	Group name		
											E	non-interventional clinical sciences		
Faculty	Medicine													
Major	medicine													
Specialties	Not applicable													
Level of studies	Uniform magister studies X * 1 st degree studies <input type="checkbox"/> 2 nd degree studies <input type="checkbox"/> 3 rd degree studies <input type="checkbox"/> postgraduate studies <input type="checkbox"/>													
Form of studies	X full-time <input type="checkbox"/> part-time													
Year of studies	5 th year					Semester		X Winter X Summer						
Type of course	X obligatory <input type="checkbox"/> limited choice <input type="checkbox"/> free choice / elective													
Course	<input type="checkbox"/> major <input type="checkbox"/> basic													
Language of instruction	<input type="checkbox"/> Polish <input checked="" type="checkbox"/> English <input type="checkbox"/> other													
* mark <input type="checkbox"/> with an X														
Number of hours														
Form of education														
Unit teaching the course	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (CC)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
Winter Semester														
Department and Clinic of Endocrinology, Diabetes and Isotope Therapy	2							6						
Department and Clinic of Haematology,	2							6						



Diseases														
Department and Clinic of Internal, Occupational Diseases, Hypertension and Clinical Oncology	2							6						
Department and Clinic of Rheumatology and Internal Medicine	2							4						
TOTAL per year:														
	20							56						
<p>Educational objectives (max. 6 items)</p> <p>C1. To acquire the knowledge of taking history and performing physical examination in adult patient.</p> <p>C2. To acquire the knowledge of the symptomatology of hormonal, haematological, cardiovascular, occupational and rheumatoid disorders in adult patients.</p> <p>C3. To develop the skills of interpretation of abnormalities found on examination.</p> <p>C4. To develop the ability to perform differential diagnosis in adult patients.</p> <p>C5. To know the rules of the contemporary treatment regiments of internal diseases.</p>														
<p>Education result matrix for module/course in relation to verification methods of the intended education result and the type of class</p>														
Number of course education result	Number of major education result	Student who completes the module/course knows/is able to						Methods of verification of intended education results (forming and summarising)			Form of didactic class <i>**enter the abbreviation</i>			
W 01	E.W7	<p>knows and understands the causes, symptoms, principles of diagnosis and therapeutic treatment in relation to the most common internal diseases occurring in adults and their complications, including:</p> <p>cardiovascular diseases: ischemic heart disease, heart defects, endocardial diseases, cardiac muscle, pericardium, heart failure (acute and chronic), arterial and venous arterial disease, hypertension (primary and secondary), pulmonary hypertension</p> <p>diseases of the endocrine system: diseases of the pituitary and hypothalamus, thyroid, parathyroid, cortex and adrenal medulla,</p>						Oral response, final test examination			L,CC			



		<p>diseases of ovaries and testicles, neuroendocrine tumors, polyglandular syndromes, various types of diabetes and metabolic syndrome, hypoglycaemia, obesity, dyslipidemia, bone tissue metabolism, osteoporosis,</p> <p>hematopoietic diseases: bone marrow aplasia, anemia, granulocytopenia and agranulocytosis, thrombocytopenia, acute leukemias, myeloproliferative and myelodysplastic-myeloproliferative tumors, myelodysplastic syndromes, tumors from mature B and T lymphocytes, haemorrhagic diathesis, thrombophilia, imminent life-threatening hematology, blood disorders in diseases of other organs; blood donation and blood therapy, bone marrow transplantation,</p> <p>occupational diseases, water-electrolyte and acid-base disorders: dehydration, conduction, electrolyte disturbances, acidosis and alkalosis, primary and secondary hypertension,</p> <p>rheumatic diseases: connective tissue systemic diseases, systemic vasculitis, vasculitis with spine involvement, bone metabolic diseases, in particular osteoporosis and osteoarthritis, gout</p>		
U 01	E.U1	performs a medical interview with an adult patient;	Oral response, problem discussion	L,CC
U 02	E.U3	performs a full and targeted physical examination of an adult patient;	Oral response, problem discussion	CC
U 03	E.U12	performs differential diagnosis of the most common diseases of adults	Oral response, problem discussion	CC
U 04	E.U16	plans diagnostic, therapeutic and prophylactic procedures;	Oral response, problem discussion	CC
<p>** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; CC practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .</p>				
<p>Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes: Knowledge: 5 Skills: 5</p>				
Student's amount of work (balance of ECTS points)				
Student's workload (class participation, activity, preparation, etc.)			Student Workload (h)	
1. Contact hours:			76 (38+38)	
2. Student's own work (self-study):			28 (14+14)	
Total student's workload			104	
ECTS points for module/course			4,0 (2,5+1,5)	
Comments				
Content of classes				



Lectures

Department and Clinic of Endocrinology, Diabetes and Isotope Therapy

1. Osteoporosis
2. Neuroendocrine tumors of gastrointestinal tract
3. Presentation of interesting cases

Department and Clinic of Haematology, Blood Neoplasms, and Bone Marrow Transplantation

1. Acute leukemias and myelodysplastic syndromes.
2. Lymphoproliferative disorders.

Department and Clinic of Cardiology

1. Valvular heart disease.
2. Pulmonary embolism.

Department of Heart Diseases

1. Acute and chronic heart failure.
2. Contemporary treatment of valvular heart diseases.

Department and Clinic of Internal, Occupational Diseases, Hypertension and Clinical Oncology

1. The emergencies in internal and occupational diseases.
2. Environmental and demographic threats in XXI century

Department and Clinic of Rheumatology and Internal Medicine

1. Rheumatoid arthritis - pathogenesis, clinical picture, diagnosis, treatment (2h).
2. Synthetic modifying drugs (DMARD) and biological drugs used in the treatment of rheumatic diseases (2h).

Practical classes

Department and Clinic of Endocrinology, Diabetes and Isotope Therapy winter semester (6 h)

1. **Hyperthyroidisms** – pathophysiology, clinical signs and symptoms, physical examination, examination of the thyroid gland, interpretation of the laboratory results. **Hypothyroidisms, thyroiditis**: etiology and pathophysiology, classification, clinical signs and symptoms, physical examination. **Diffuse goiter and multinodular goiter** – definition, epidemiology, clinical characteristics, diagnostic procedures. **Thyroid cancer**: prevalence, etiology and pathogenesis, risk factors, classification, clinical characteristics, diagnosis.
2. **Glucose metabolism disorders. Diabetes mellitus**: epidemiology, pathogenesis, signs and symptoms, diagnostic criteria (Fasting glucose, Oral glucose tolerance test, protein C). Diabetes type 1 and type 2. Options for treatment. **Complications of diabetes mellitus** – hypoglycaemia, diabetic ketoacidosis, hyperosmolar hyperglycaemic state – pathogenesis, signs and symptoms, principles of therapy. **Diseases of adrenal glands**: pathogenesis and etiology, signs and symptoms of hypercortisolaemia and insufficiency of adrenal glands, physical examination, principles of diagnosis (interpretation of laboratory assays, imaging diagnostics). **Hypertension due to endocrine disorders**: pheochromocytoma, oral contraceptives, hypercortisolaemia, hyperaldosteronism – signs and symptoms, targeted diagnostics.

Practical classes – summer semester (6 h)

1. **Disorders of hypothalamic-pituitary unit: the most frequent pathologies** – signs and symptoms, physical examination, principles of diagnosis. Clinical presentation of acromegaly, hyperprolactinemia, panhypopituitarism and diabetes insipidus.



- 2. Evaluation and treatment of menstrual irregularities:** etiology, clinical presentation, interpretation of laboratory tests and imaging. **Disorders of male reproductive system:** hypogonadotropic and hypergonadotropic hypogonadism, andropause – signs and symptoms, etiology, physical examination.
- 3. Disorders of calcium and phosphate metabolism:** primary and secondary hyperparathyroidism, hypoparathyroidism – etiology, pathogenesis, clinical symptoms. Physical examination. Principles of laboratory tests and imaging.

Department and Clinic of Haematology, Blood Neoplasms, and Bone Marrow Transplantation

Winter semester – 2 days (7h)

- Hematological norms, diagnostics of the blood disorders, basic and detailed diagnostic test available in hematology, cytogenetic's and molecular alterations in blood diseases. Flow cytometry in hematology.

Coagulation disorders. Thrombophilia. Platelet and vascular bleeding disorders.

- 2. Anemia:** related to deficiency, aplastic anemia and hemolytic anemia. Myelodysplastic syndromes. Acute leukemias – symptoms, diagnosis, treatment. WHO classification. Algorithms and standards used in different hematological disorders. Treatment with hematopoietic cytokines and cytostatics in hematology. Supportive therapy.

Summer semester – 2 days (6h)

- Lymphoproliferative disorders, Hodgkin and non-Hodgkin Lymphoma. Plasmocytic dyscrasias – classification.
- HSC transplant in blood diseases – indications, purposes, course, types. Early and late complications after bone marrow transplantation. Myeloproliferative syndromes – polycythemia vera, essential thrombocythemia, osteomyelofibrosis, chronic myeloid leukemia. MPD/MPS.

Department and Clinic of Cardiology

- Diagnostics and treatment of stable coronary heart disease
- Diagnostics and treatment of acute coronary syndromes.
- Diagnostics and treatment of supraventricular arrhythmias. Implantable pacemakers.
- Diagnostics and treatment of ventricular arrhythmias. Implantable cardioverters/defibrillators; resynchronization therapy.

Department of Heart Diseases

- Physical examination of cardiovascular system, laboratory parameters used in cardiovascular disease, imaging techniques, drugs used in cardiology. ECG – basic rules.
- Mitral regurgitation. STEMI. Coronary angiography and PCI. Advanced life support.
- Mitral stenosis. Bradyarrhythmias and conductance disturbances. NSTEMI.
- Aortic regurgitation. SVT. AF/AFL. Prophylaxis of arterial and venous thrombotic events.
- Aortic stenosis. VT. Sudden cardiac death. Stable angina pectoris.
- Other acquired valve diseases. Blood pressure measuring. Arterial hypertension.
- Electrophysiology study, Holter ECG. PM + CRT + ICD. Prevention of cardiovascular diseases. Test.
- Chronic heart failure. Cardiopulmonary exercise test. Heart transplantation.
- Acute heart failure (including pulmonary oedema, cardiogenic shock, right ventricular failure, hyperkinetic heart failure)
- Infective endocarditis. Pericarditis. Cardiac tamponade
- Pulmonary embolism and vein thrombosis. Prophylaxis of arterial and venous thrombotic events.
- Pulmonary hypertension. Congenital heart diseases. Cardiac tumours. Test.

Department and Clinic of Internal, Occupational Diseases, Hypertension and Clinical Oncology

Sumer semester



1. Assessment of the cardiovascular risk. Laboratory tests and diagnostic imaging in hypertension. ABPM - ambulatory blood pressure monitoring and its interpretation. A patient with refractory hypertension - causes, diagnosis and treatment. The concept of pseudo-refractory hypertension, masked hypertension, "white coat hypertension" and "white coat effect".
2. Hypertensives emergencies (pulmonary edema in the course of a blood pressure increase, in the course of tachyarrhythmias, pulmonary embolism, acute kidney injury). Rules of conduct in specific therapeutic groups of patients with hypertension (metabolic syndrome, diabetes, stroke, pregnancy, old age, chronic kidney disease). Rules for selection of drugs, depending on the profile of the patient – causal treatment, individualization of pharmacotherapy in accordance with the principles of EBM.

Winter Semester

1. Stroke - principles of diagnostics and therapeutic treatment, additional tests in a patient with recurrent ischemic stroke. Assessment of the patient's consciousness by the Glasgow Coma Scale.
2. DIC - principles of diagnosis and treatment, haemorrhagic diathesis, including iatrogenic - overdose of anticoagulants, bleeding in a patient treated with anticoagulant
3. Emergencies in metabolic disorders. Respiratory and metabolic acidosis. Respiratory and metabolic alkalosis. Compensatory mechanisms. The principles of diagnosis and therapy. Test.

Department and Clinic of Rheumatology and Internal Medicine

1. Rheumatoid arthritis - pathogenesis, clinical picture, diagnosis, treatment, (2h)
2. Systemic connective tissue diseases - clinical picture, diagnostics, treatment, (2h)

Basic literature (list according to importance, no more than 3 items)

1. Harrison's Principles of internal medicine. 19th edition. Dan L. Longo et all. McGraw-Hill Medical, 2015.

Additional literature and other materials (no more than 3 items)

1. Greenspan's basic and clinical endocrinology
2. Braunwald's Heart Disease. A Textbook of Cardiovascular Medicine. 7th or 8th Edition. Elsevier
3. NM Kaplan, RG Victor MD, Kaplan's Clinical Hypertension, Lippincott Williams & Wilkins, 2014

Didactic resources requirements

multimedia projector

Preliminary conditions

Basic anatomy, physiology and pathophysiology

Conditions to receive credit for the course

Attendance to all classes,

Activity during classes.

Obtaining credit from the written test at the end of the course

Each absence must be made up, including rector's days or dean's hours.

Grade:	Criteria for course
Very Good (5.0)	95-100% of final test exam points
Good Plus (4.5)	90-94% of final test exam points
Good (4.0)	80-89% of final test exam points



Satisfactory Plus (3.5)	70-79% of final test exam points
Satisfactory (3.0)	60-69% of final test exam points
Grade:	
Criteria for exam (if applicable)	
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	

Name of unit teaching course:	Department and Clinic of Endocrinology, Diabetes and Isotope Therapy
Address:	Pasteura 4, 50-367 Wrocław
Phone:	71 784 25 45, 71 784 25 46
E-mail:	elzbieta.szubart@umed.wroc.pl

Person responsible for course:	Justyna Kuliczowska-Płaksej
Phone:	71 784 25 45, 71 784 25 46
E-mail:	justyna.kuliczowska-plaksej@umed.wroc.pl

<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Prof. Marek Bolanowski	MD, PhD	Internal Medicine Specialist, Endocrinologist	physician	CC, L
Assoc. Prof. Jacek Daroszewski	MD, PhD	Internal Medicine Specialist, Endocrinologist, Diabetologist	physician	CC, L
Aleksandra Jawiarczyk-Przybyłowska	MD, PhD	Internal Medicine Specialist, Endocrinologist	physician	CC
Jowita Halupczok-Żyła	MD, PhD student		physician	CC



Katarzyna Zawadzka	MD, PhD		physician	CC
Marcin Kałużny	MD, PhD	Internal Medicine Specialist, Endocrinologist, Diabetologist	physician	CC
Eliza Kubicka	MD, PhD	Internal Medicine Specialist, Endocrinologist	physician	CC
Aleksandra Zdrojowy-Wetna	MD, PhD		physician	CC
Anna Brona	MD, PhD	Internal Medicine Specialist, Endocrinologist	physician	CC
Barbara Stachowska	MD, PhD	Internal Medicine Specialist, Endocrinologist	physician	CC
Łukasz Gojny	MD, PhD student		physician	CC
Łukasz Mizera	MD, PhD student		physician	CC
Maja Jończyk	MD, PhD student		physician	CC
Aleksandra Drabik	MD, PhD student		physician	CC
Małgorzata Mach	MD, PhD student		physician	CC
Justyna Kulickowska-Płaksej	MD, PhD	Internal Medicine Specialist, Endocrinologist	physician	CC



Name of unit teaching course:	Department and Clinic of Haematology, Blood Neoplasms, and Bone Marrow Transplantation
Address	Wrocław, ul. Wybrzeże L. Pasteura 4
Phone	717842576
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Person responsible for course:	Marta Sobas
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<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Tomasz Wróbel	MD, PhD	Internal Medicine Specialist, Hematologist, Transplantation Medicine	physician	CC, L
Wołowicz Dariusz	MD, PhD	Internal Medicine Specialist, Hematologist	physician	CC
Maria Podolak-Dawidziak	MD, PhD	Internal Medicine Specialist, Hematologist	physician	CC
Lidia Usnarska-Zubkiewicz	MD, PhD	Internal Medicine Specialist, Hematologist, Transplantation Medicine	physician	CC
Czyż Anna	MD, PhD	Internal Medicine Specialist, Hematologist, Transplantation Medicine	physician	CC
Katarzyna Kapelko-Słowik	MD, PhD	Internal Medicine Specialist, Hematologist	physician	CC
Donata Urbaniak-Kujda	MD, PhD	Internal Medicine Specialist, Hematologist, Transplantation Medicine	physician	CC
Justyna Rybka	MD, PhD	Internal Medicine Specialist, Hematologist	physician	CC
Stanisław Potoczek	MD, PhD	Internal Medicine	physician	CC



		Specialist, Hematologist		
Biernat Monika	MD, PhD	Internal Medicine Specialist, Microbiologist	physician	CC
Sobas Marta	MD, PhD	Hematologist	physician	CC
Kalicińska Elżbieta	MD, PhD	Internal Medicine Specialist	physician	CC
Szeremet Agnieszka	MD	Internal Medicine Specialist, Hematologist	physician	CC
Dębski Jakub	MD	Internal Medicine Specialist	physician	CC
Bogucka-Fedorczuk Aleksandra	MD		physician	CC
Walasek Angela	MD, Ph student		physician	CC
Sawicki Mateusz	MD, Ph student		physician	CC



Name of unit teaching course:	Department and Clinic of Cardiology
Address	ul. Borowska 213, 50-556 Wrocław
Phone	71 736 42 00
E-mail	kardiologia@umed.wroc.pl

Person responsible for course:	Andrzej Mysiak, MD, PhD
Phone	71 7364201
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<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Wiktor Kuliczkowski	MD, PhD	cardiology	physician	L, CC
Marcin Protasiewicz	MD, PhD	cardiology	physician	CC
Tomasz Witkowski	MD, PhD	cardiology	physician	CC
Konrad Kaaz	MD, PhD	cardiology	physician	CC
Magdalena Cielecka-Prynda	MD	internal medicine	physician	CC
Kamila Woźnicka	MD	cardiology	physician	CC
Tomasz Kotwica	MD, PhD	cardiology	physician	CC
Hanna Szczepanik-Osadnik	MD, PhD	cardiology	physician	CC
Wojciech Kosowski	MD	internal medicine	physician	CC
Maciej Kabaj	MD	internal medicine	physician	CC



Name of unit teaching course:	Department of Heart Diseases, Military Hospital
Address	Weigla 5 , Wrocław
Phone	261-660-275
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Person responsible for course:	Piotr Kübler
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<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Piotr Ponikowski	professor	internal medicine, cardiology	physician	CC, L
Ewa Jankowska	professor	internal medicine, cardiology	physician	CC, L
Krzysztof Reczuch	professor	internal medicine, cardiology	physician	CC, L
Piotr Kübler	PhD	internal medicine, cardiology	physician	CC, L
Krzystian Josiak	PhD	internal medicine, cardiology	physician	CC, L
Robert Zymliński	PhD	internal medicine, cardiology	physician	CC, L
Jan Biegus	PhD	internal medicine, cardiology	physician	CC
Piotr Niewiński	PhD	internal medicine, cardiology	physician	CC
Mateusz Sokolski	PhD	internal medicine, cardiology	physician	CC
Krzysztof Nowak	PhD	internal medicinae, cardiology	physician	CC



Name of unit teaching course:	Department and Clinic of Internal, Occupational Diseases, Hypertension and Clinical Oncology
Address	Borowska 213; 50-556 Wrocław
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Person responsible for course:	Anna Jodkowska, MD, PhD
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<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Adrian Doroszko	MD, PhD	Internal diseases, cardiology	physician	CC
Anna Jodkowska	MD, PhD	Internal diseases, endocrinology, hypertensiology	physician	CC
Maciej Podgórski	MD	Internal diseases, cardiology	physician	CC
Helena Martynowicz	MD, PhD	Internal diseases, hypertensiology	physician	CC, L
Maciej Jakubowski	MD	Internal diseases, in training	physician	CC
Aleksandra Butrym	MD, PhD	Internal diseases, hematology	physician	CC
Jarosław Dybko	MD, PhD	Internal diseases, hematology	physician	CC
Jakub Gawryś	MD	Internal diseases, in training	physician	CC
Jakub Mochol	MD	Internal diseases, in training	physician	CC
Leopold Rehan	MD	Internal diseases, in training	physician	CC
Maciej Bładowski	MD	Internal diseases, in training	physician	CC
Magdalena Stępniewska	MD	Internal diseases, in training	physician	CC
Damian Gajecki	MD	Internal diseases, in training	physician	CC
Marcin Chuć	MD	Internal diseases, nephrology	physician	CC
Prof. Anna Skoczyńska	Prof. Med	Internal diseases, hypertensiology	physician	CC, L



Name of unit teaching course:	Department and Clinic of Rheumatology and Internal Medicine
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Person responsible for course:	Prof. Piotr Wiland
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<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Piotr Wiland	Prof.	specialist in internal medicine and rheumatology	physician	L
Jerzy Świerkot	Assoc. Prof.	specialist in internal medicine and rheumatology	physician	L
Agata Sebastian	MD, PhD	specialist in internal medicine and rheumatology	physician	CC
Renata Sokolik	MD, PhD	specialist in internal medicine and rheumatology	physician	CC
Magdalena Szmyrka	MD, PhD	specialist in internal medicine and rheumatology	physician	CC
Marta Madej	MD, PhD	specialist in internal medicine and rheumatology	physician	CC
Ewa Morgiel	MD, PhD	specialist in internal medicine and rheumatology	physician	CC
Marta Skoczyńska	MD		physician	CC
Paweł Stępniewski	MD		physician	CC
Bartłomiej Bugaj	MD		physician	CC



Date of Syllabus development

...30.09.2018.....

Syllabus developed by

...Tomasz...Witkowski.....

Signature of Head of teaching unit



Uniwersytet Medyczny we Wrocławiu
KATEDRA KLINIKI NEFROLOGII
kierownik
prof. dr hab. n. med. Andrzej Mysiak

Signature of Faculty Dean



Wrocław Medical University
FACULTY OF MEDICINE
VICE-DEAN FOR STUDIES IN ENGLISH
Prof. Andrzej Hendrich, PhD