EURÓPSKA ÚNIA
Európsky fond
regionálneho rozvoja

MEDI PARK KOŠICE

OPERAČNÝ PROGRAM VÝSKUM A INOVÁCIE

Podporujeme výskumné aktivity na Slovensku/Projekt je spolufinancovaný zo zdrojov EÚ

UVP MEDIPARK
DEVELOPMENT OF CUTTING EDDGE INFRASTRUCTURE

PAVOL JARČUŠKA

MEDI PARK KOŠICE

Date of Birth: June, 30th 2018
Place of Birth: Košice
Parents: UPJS, UVM, TUKE, NBU SAV

MEDI PARK KOŠICE

UVP (USP) MEDIPARK – A STAR IS BORN

A pplied science - *absolutely attractive and necessary*

UVP (USP) MEDIPARK –A STAR IS BORN

S cience

T echnology transfer

A thersclerosis

R esearch

UVP (USP) MEDIPARK – A STAR IS BORN

I nfectious Diseases

S LOVACRIN

UVP (USP) MEDIPARK – A STAR IS BORN

B iomedicine

O ncology

R egenerative medicine

N eurosciences

UVP (USP) MEDIPARK - AIMS

Building of infratructure as sofisticated techological unit

1) Realization of building at UPJS Trieda SNP 1
2) University of Veterinary Medicine – Small animals pavillon
3) High-guality modern technical infracture located at UPJS, UVM, Technical university and Institute neurobiology of Slovak Academy of Sciences
4) Information and communication systems and its implementation


UNIVERZITNÁ VETERINÁRNA
NEMOCNICA


LED700
tasr

UVP (USP) MEDIPARK - AIMS

High – quality applied research in selected spheres of science including social and behavioral aspects of Public health in five (CORE) scientific programs (areas):

- Pharmacogenetics and individualization of therapy
- Metabolic diseases – atherosclerosis – respiratory medicine – ageing
- Neurosciences
- Regenerative and reproductive Medicine
- Zoonoses and important Infectious Diseases

PHARMACOGENETICS AND INDIVIDUALIZATION OF THERAPY - UPJS

- Builded on principles of personalized medicine – individualization of patients characterized by gene (genomics), phenotype (protemics)
- Personalized treatment – focused on oncology – patient (genotype, phenotype), tumor – in detail characterization (imunophnotype, gene characterization), drug – the possible targets of the effect of anticancer agents, pharmacokinetics, pharmacodynamics, resistance
- Substances of natur origin in oncology – identifictaion of target, patient population

NEUROSCIENCES – UPJS, BMC SAV

- Chronic diseases – ho to detect with first very discrete (small) clinical symptomes - Alzheimer Disease
- Stroke
- Demyelinization diseases
- Study of ischemic and traumatic injury in the central nervous system and the regeneration possibilities and various protective effects

PROF. ZUZANA GDOVINOVA – WOMAN OF THE YEAR

Žena roka - lekárka Zuzana Gdovinová

ASSOC. PROF. MATEJ ŠKORVÁNEK, M.D., PHD. WON THE SCIENCE AND TECHNOLOGY AWARD

REGENERATIVE MEDICINE – UPJS, TUKE

- Development of safe cell therapy for the treatment of musculoskelatal diseases and development of new bone tissue replacements and cellular carriers using 3D printing
- immunomodulation - inhibition of inflammation, regeneration of tissue - articular cartilage, synovium and bone
- Treatment by new methods of tissue diagnostics and regeneration, treatment with adult stem cells, or other diagnostic and therapeutic modalities
- Participation of creation of national biobanking programme

ZOONOSES AND IMPORTANT INFECTIOUS DISEASES
UPJS, UVM

MEDI PARK KOŠICE

- Clinical cooperation between human, veterinary and enviromental sector
- Detction of zoonozes – development of new test for detection of west Nile fever, hepatitis E....
- Epidemiological and epizootical aspects of zoonozes
- Antimicrobila resistance

METABOLIC DISEASES – ATHEROSCLEROSIS – RESPIRATORY MEDICINE – AGEING

- Focused on preventable diseases
- Association between COPD, atherosclerosis an metabolc syndrome – as one unique disease
- Application of genomics and proteomics
- Epidemiological studies – Hepameta – Risk factors of chronic Diseses in Roma community

UVP (USP) MEDIPARK - AIMS

Management and supportive processes UVP MediPark targeted on:

- Support of applied science in CORE programs
- Support of intelectual property rights
- Technology transfer
- Creation and building of spin - offs

PARNTERS

Pavol Jozef Safarik University in Košice

Technical University in Košice

University of Veterinary Medicine in Košice

Institute of Neurobiology, Slovak Academy of Sciences

MEDIPARK – PHASING, PHASE I, PHASE II

	Medipark I		Medipark II	
	from	to	from	to
Realization	10.07.2013	30.11.2015	11.03.2017	30.06.2018
Final Payment Request (FPR)				30.09.2018
On site control		Before 04/2021		(up to 30 days after FRP)) 10/2018
Sustainability	Final Monitoring report 31.12.2015	Follow up Monitoring Report 30.04.2021	Final Monitoring report 13.08.2018	Follow up Monitoring Report 11/2023

MEDIPARK – PAHSE II - BUDGET

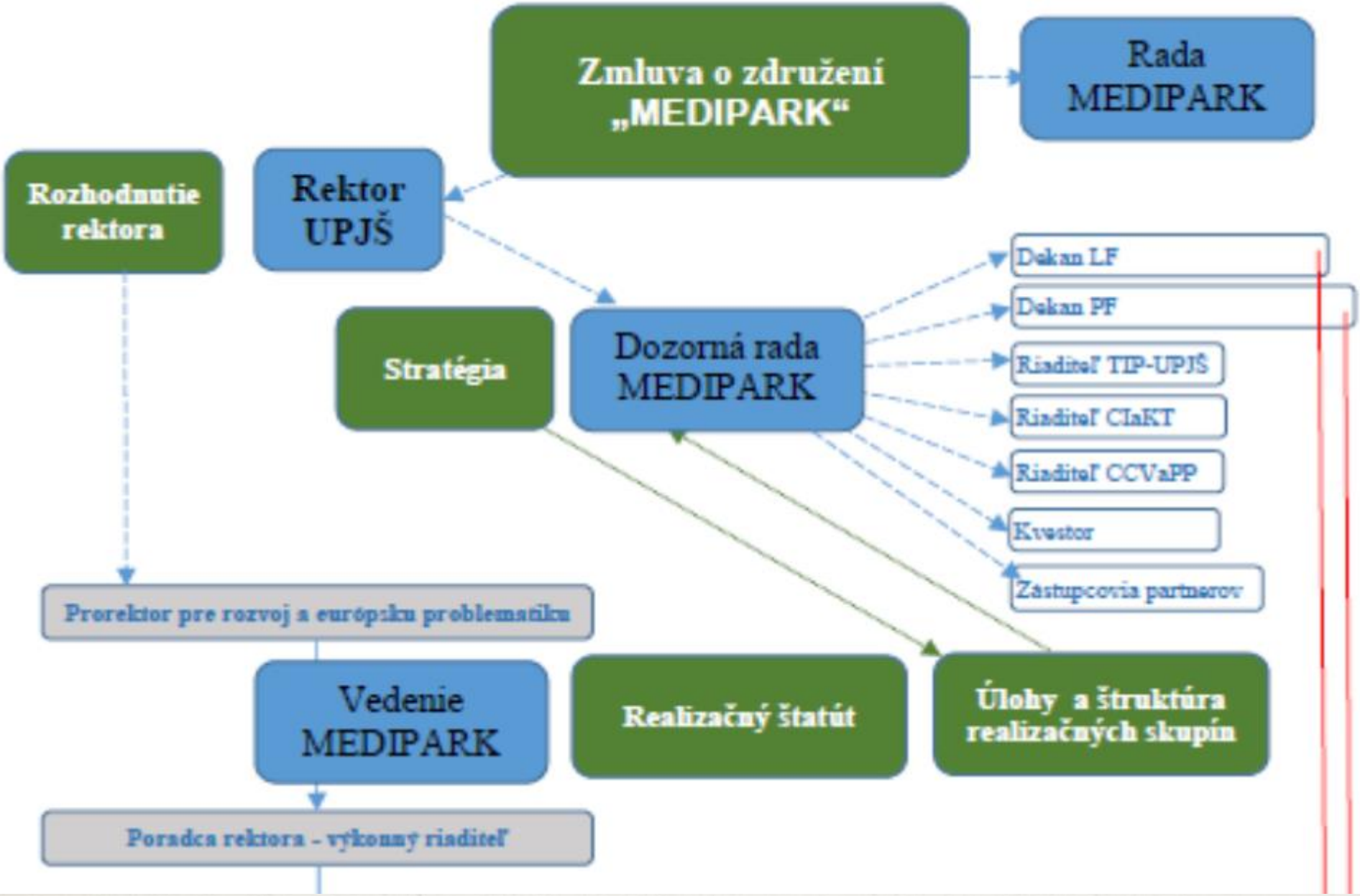
Medipark II (UPJŠ, UVLF, TUKE, NbÚ SAV)	Building	Infrastrucuture equipment, furniture	Services, licensing, software	Insurance/ travel expenses	Personal costs	Together
Budget	2 446 599,96	3 082 558,12	4 565 710,57	17 500,00	71 970,00	**10 184 338,65**

MediPark I – total budget - 21 845 729,24 €

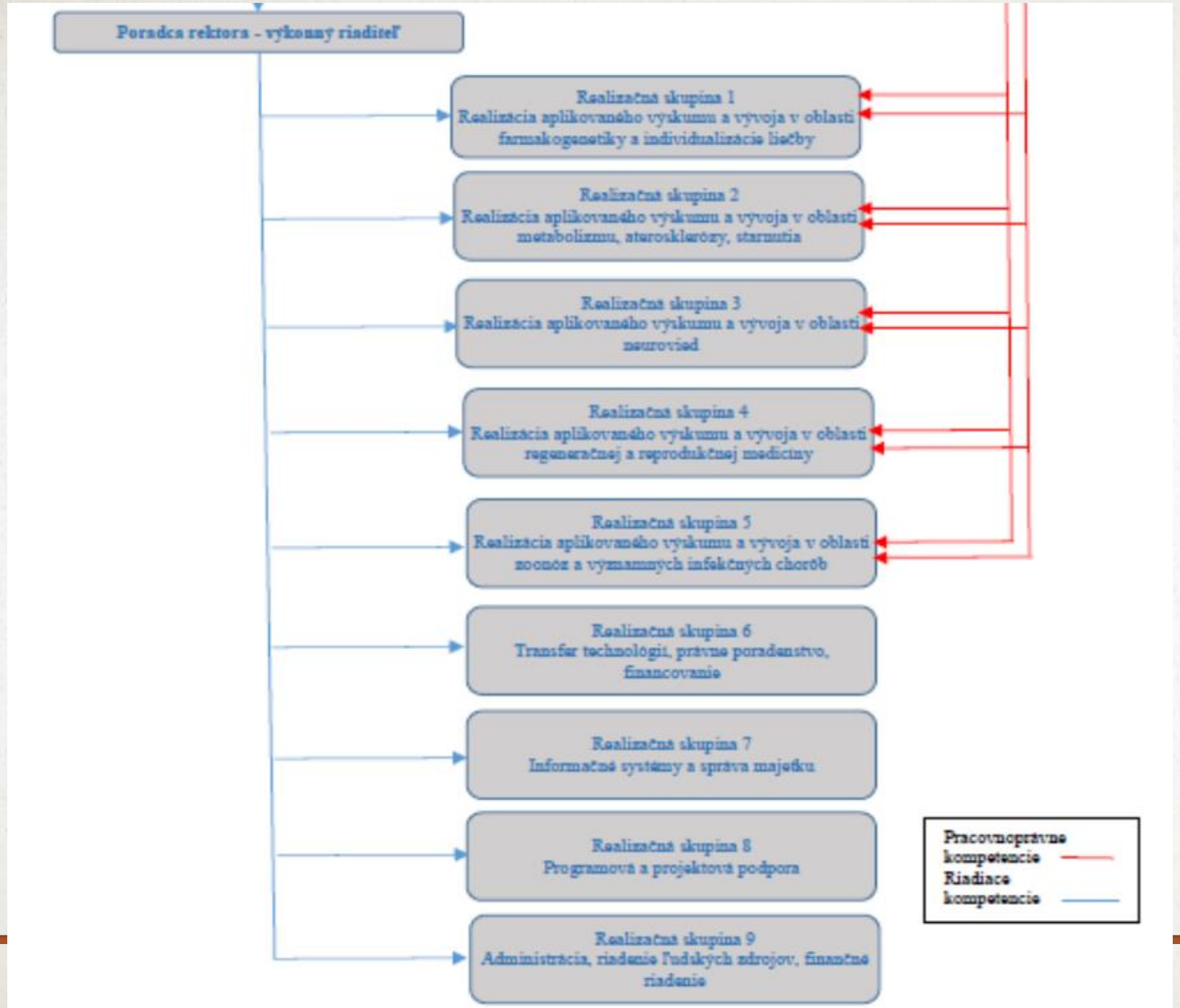
ORGANZATION, DIRECTION, MANAGEMENT AND SUPPORTIVE PROCESSES OF UVP MEDIPARK

- Acts of rector of UPJŠ
- Board of directors
- Advisory Board
- Scientific Board
- Personal Management - chart
- Directors of IPR (located at TIP), ICT
- Directors and personal staff of CORE programs
- Supportive staff

Štruktúra UVP MEDIPARK

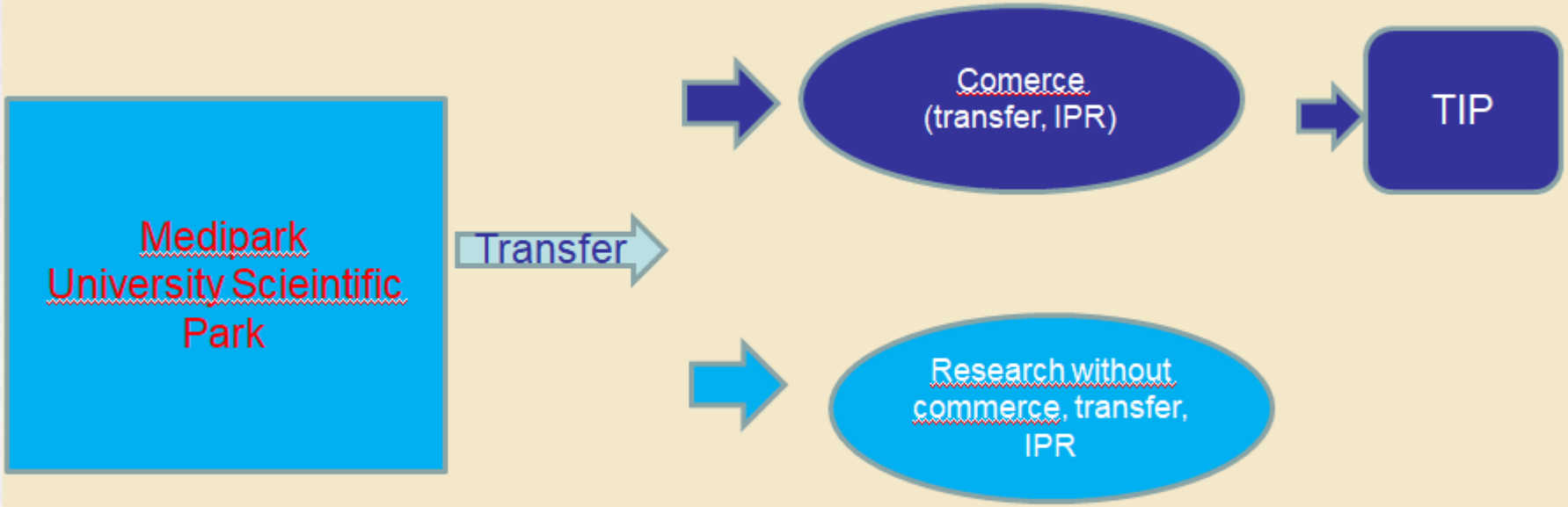


MEDI PARK KOŠICE



MEDI PARK KOŠICE

UVP Medipark and TIP



MEDIPARK – SUSTAINABILITY UP TO NOVEMBER 2023

- Longtime Plan of Strategy and dissemination of UVP MediPark
- Direct binding, cooperation and activity sharing of UVP MediPark and TIP UPJŠ
- Publicity, propagation and dissemination of UVP MediPark results

MEDIPARK – SUSTAINABILITY UP TO NOVEMBER 2023

- Consortional agreemnet of UVP Medipark partners
- Active networking (shared projects, LTSR, H2020, APVV, ...)
- Shared participation on new call for UVP MediPark follow up support
- Biobanking project
- Technology innovation Park
- ECRIN/Slovacrin
- Shared Prejects of Ministry of Health, Ministry of Agriculture, Ministry of Education

MEDIPARK – FUTURE

UVP Medi Park – is open system for new partners and ad hoc commercional research

Cooperation and binding with international consortia – f.e. ECRIN/Slovacrin....

Cooperation with commercional sphere, hospitals, ICT companies, etc...

Free zone

Cooperation – TIP, other parks and scientific centres

EXAMPLES OF OUTPUT

- IPR and technology transfer
- ECRIN/SLOVACRIN
- National Action Plans creation
- Publicity
- New projects

EXAMPLES OF OUTPUT

- IPR and technology transfer
  - ECRIN/SLOVACRIN
  - National Action Plans creation
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  - New projects

TRANSFER OF IPR - TIMELINE

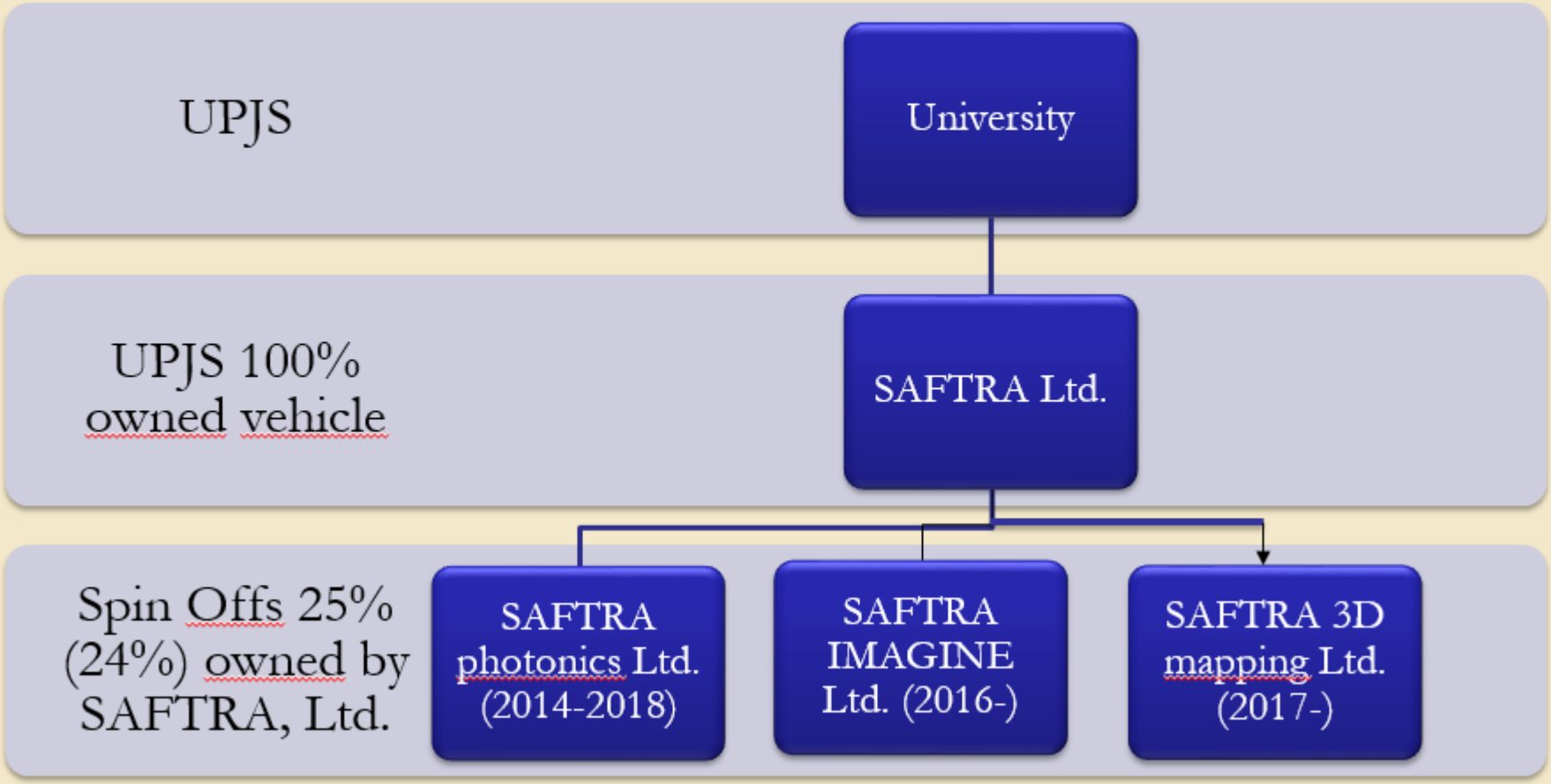
- End of 2012
- March of 2013
- July of 2013
- End of 2013
- January 2014
- February 2014
- 2014
- 2015
- 2018

- starting initiative
- internal directive on IP
- Transfer office formed (TO)
- Audit of IP
- Link to national TO
- First cases of IP registered
- 100% owned corp. formed
- First Spin off formed
- 4 Spin offs worked, 1 formed

TRANSFER PRINCIPLES

- Proceeds from IP - 50% to authors – 50% to University (15% - department & 35% UPJS) – Development fund - 75%
- Licencing to 3rd parties or to a Spin off formed by authors – author‘s choice
- Ongoing multidisciplinary research on IP owned by UPJS (UVP MediPark)
- Support to spin offs, partly owned by University Ltd., vehicle - incubator(UVP MediPark)

Infrastructure of Transfer



MEDI PARK KOŠICE

CURRENT STATUS OF IPR

1. Sensors to detect tension in concrete
2. Human strain of Lactobacillus
3. Operating tool for liver
4. Coloring for colon polyp operations
5. Polymer coated nanohybrid materials

1. Spanish patent and PCT registered
2. Patent pending, national award for IP
3. PCT registration
4. Patent registration pending (PCT), Spin off
5. Patent registration pending

EXAMPLES OF OUTPUT

- IPR and technology transfer
- **ECRIN/SLOVACRIN**
- National Action Plans creation
- Publicity
- New projects

History - Milestones

- **September 2016** – discussion on connecting Slovakia with the Czech Academic Clinical Research Infrastructure CZECRIN, UPJS proposed as the national partner
- **September 2017** – CZECRIN-ECRIN presented at the Academic Senate session of FM UPJS, approved for supporting the observers duties of Slovakia (EUCo hosting)
- **May 2018** – Dean of FM UPJS presents SLOVACRIN vision and its coordination abilities at ECRIN Assembly meetings in Budapest
- **June 2018** – MoH applies for Observer membership at ECRIN, Prof. Pella has been nominated for Assembly of Members
- **July 2018** – Slovakia received the approval from ECRIN Assembly of Members as the new Observer country
- **September 11th, 2018** – kick off meeting of SLOVACRIN, MoH, Bratislava

Legal Frame of SLOVACRIN

SLOVACRIN

- is **not a single research centre**
- based on joint **collaboration between Universities** and different **hospitals**
  - **University module** (collaboration of universities)
  - **Clinical module** (network of health care providers)
- Coordination by **National Contact Point** at FM UPJS
- Cooperation with the other partners under Framework agreements in numerous fields of medicine

SLOVACRIN

- composed as the infrastructure to ensure the activities of the network of Clinical Trial Centers and Units located at Universities, Institutions and hospitals in Slovakia

- SLOVACRIN should support and enable
  - ✓ realisation of the multicentric trials/projects
  - ✓ overcoming the barriers for academic projects
  - ✓ boost up the quality of the results
  - ✓ support and increase the competitiveness of academic research centers

Main Aims

- To **build an infrastructure** for the implementation of academic clinical trials in Slovakia
  - *by **connections with the coordinating centers at universities** (Clinical Trial Centers),*
  - *by **connections with the clinical research units** (Clinical Trial Units) **at hospitals** and various medical facilities*
- through the National Coordinating point at UPJS to **connect** this network **to the European academic clinical trials** infrastructure ECRIN
- To Prepare the **Roadmap for Clinical Research Infrastructures** in Slovakia

SLOVACRIN Strategy

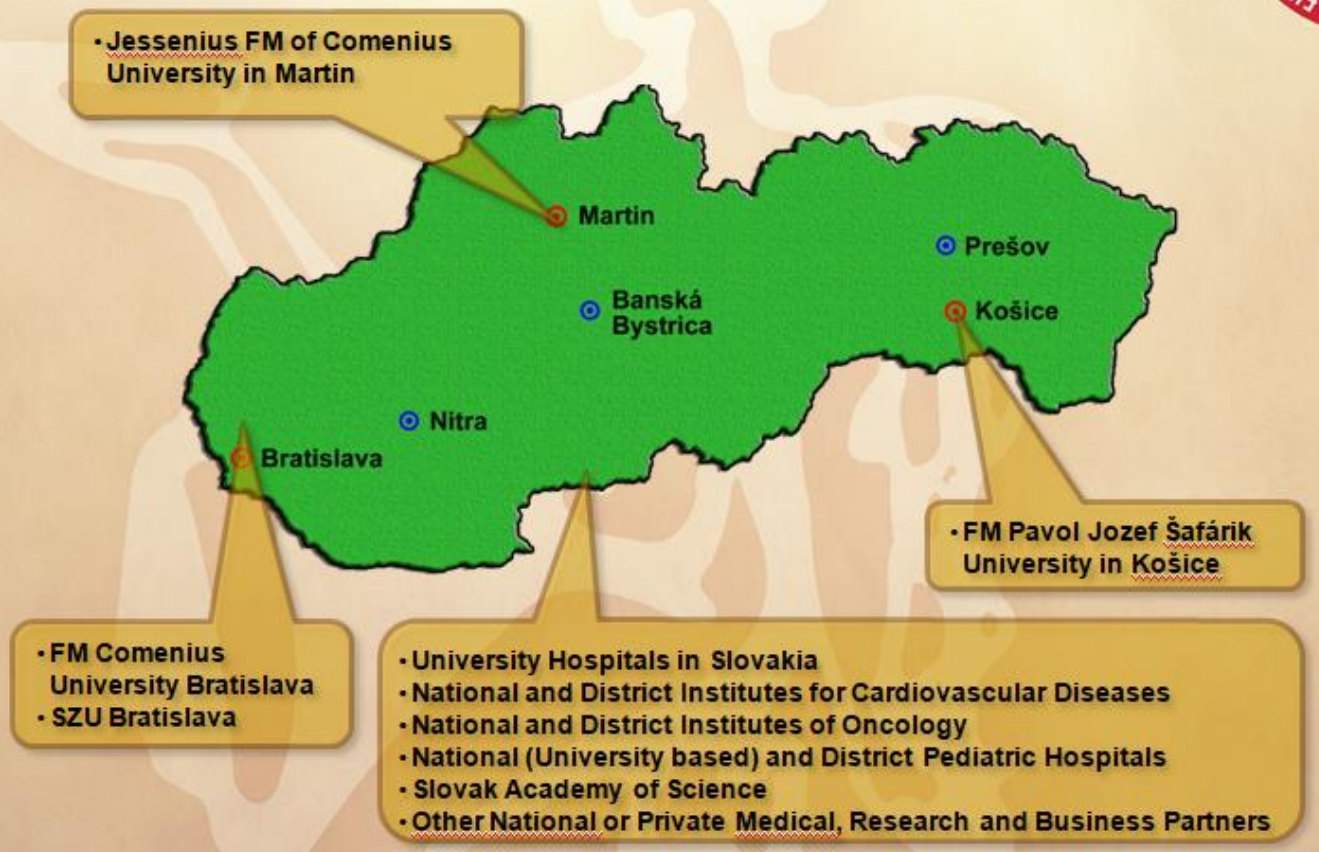
- **Short term** (within 1 year 2018/2019)
  - **SLOVACRIN at FM UPJS**
    - **EUCo correspondent(s)** – link to ECRIN Headquarters
    - Defined internal and external structure and main partners
  - **Preparation of the respective Framework agreements**
    - ECRIN-ERIC – SLOVACRIN
    - SLOVACRIN – main and other partners

SLOVACRIN Strategy

- **Long term** („Observer period“, 2018-2021)

  - Mapping the possible partners within the existing academic and hospitals collaboration
  - the Building a **network of scientific and clinical partners**
  - **Roadmap for academic clinical trials in Slovakia**
  - Cooperation on ongoing and planned **ECRIN projects**
  - Local academic studies proposal
  - Educational activities
  - **Cooperation with the regulators and the other stakeholders** on the evolution of the local environment for clinical studies
  - Contribution to the positive picture of clinical studies in Slovakia

Potential Partner Institutions

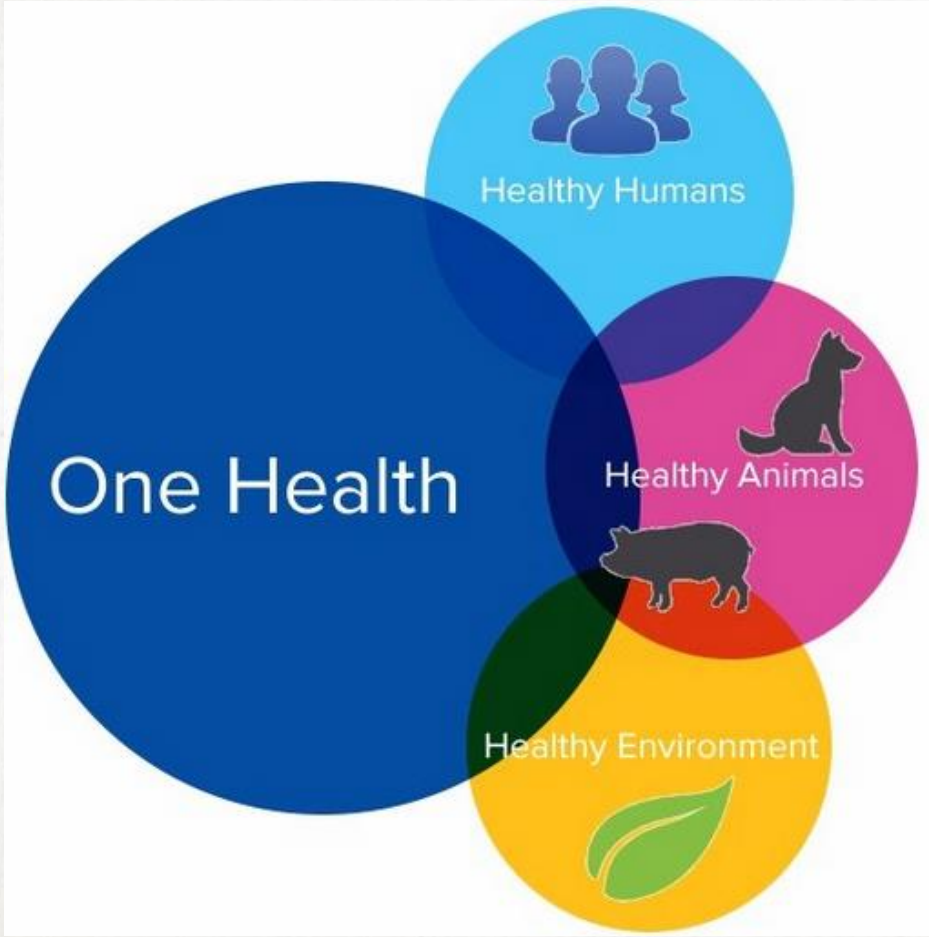


MEDI PARK KOŠICE

EXAMPLES OF OUTPUT

- IPR and technology transfer
- ECRIN/SLOVACRIN
- National Action Plans creation
- Publicity

ONE HEALTH – ONLY IN KOSICE EXISTS ALL CONDITIONS FOR IMPLEMENTATION „FULL ONE HEALTH“



NATIONAL ACTION PLANS
COLLANORATION BETWEEN UPJS AND UVM

- National Plan on prevention and control of Infection diseases
- National Action plan on antimicrobial resistance
- Approved by Slovak goverment January 9th 2019

Národný plán kontroly infekčných ochorení má predchádzať ich šíreniu

SITA 19.8.2018 12:55 Žiadne komentáre

Ilustračný obrázok, FOTO: TASR/Pavel Neubauer

BRATISLAVA – Vláda bude v stredu rokovať aj o Národnom pláne kontroly infekčných ochorení (NPKIO) v SR, ktorý vypracovalo Ministerstvo zdravotníctva SR. ***"Cieľom predkladaného národného programu je stanoviť globálny rámec na predchádzanie šíreniu infekčných ochorení, ako aj starostlivosť o chorých na infekčné ochorenia,"*** uvádza sa v dokumente.

Národný plán kontroly infekčných ochorení obsahuje tiež špecifické ciele. Jedným z nich je národná kampaň ***"Čisté ruky"***. Cieľ sa môže dosiahnuť prostredníctvom zavedenia povinného školenia o hygiene rúk alebo dodržiavaním farebného kódovania pomôcok na dezinfekciu prostredia. Ďalším špecifickým cieľom je zníženie výskytu ochorení prenosných najmä krvou a pohlavným stykom a zlepšenie Národného imunizačného programu Slovenskej republiky. Tu pomôžu poradensko-preventívne centrá pre HIV/AIDS alebo zlepšenie povedomia a návštevnosti preventívnych vyšetrení ako primárnej formy prevencie.

EXAMPLES OF OUTPUT

- IPR and technology transfer
- ECRIN/SLOVACRIN
- National Action Plans creation
- **Publicity**
- New projects

PUBLICITY, PROPAGATION AND DISSEMINATION OF UVP MEDIPARK RESULTS

- Oriented to future students at UPJS and at partners
- Basic school, middle school, foreign students
- Science week, Open door university day

EXAMPLE – PROGRAM FOR BASIC SCHOOL

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MEDI PARK KOŠICE

OPERAČNÝ PROGRAM VÝSKUM A INOVÁCIE

UNIVERZITA PAVLA JOZEFA ŠAFÁRIKA V KOŠICIACH 1795 1861 1959

UNIVERZITA VETERINÁRSKEHO LEKÁRSTVA A FARMÁCIE V KOŠICIACH

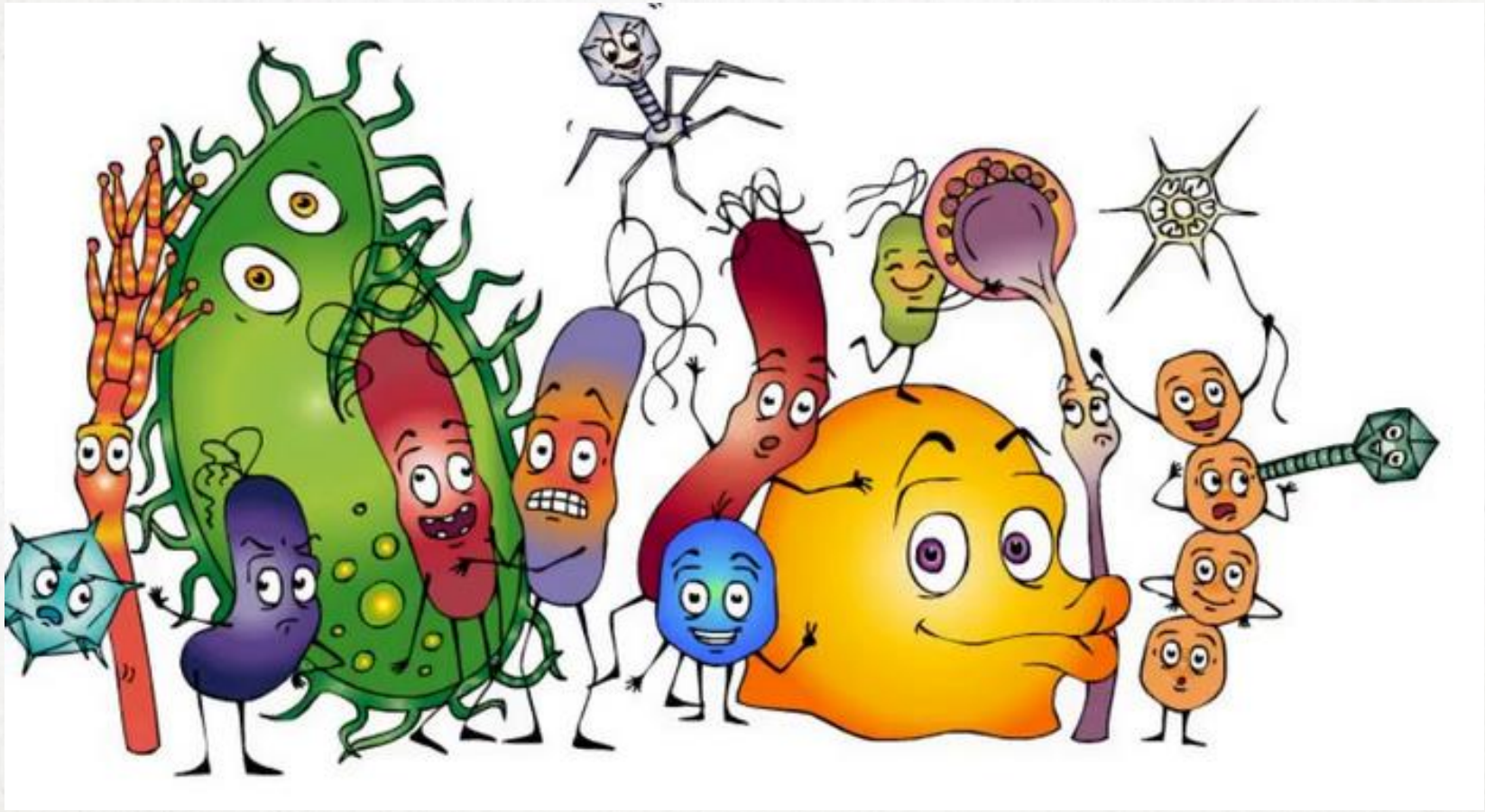
SLOVENSKÁ AKADÉMIA VIED ACADEMIA SCIENTIARUM SLOVACA

Podporujeme výskumné aktivity na Slovensku/Projekt je spolufinancovaný zo zdrojov EÚ

UVP Medipark a infekcie – pre deti

Pavol Jarčuška

MICROBES



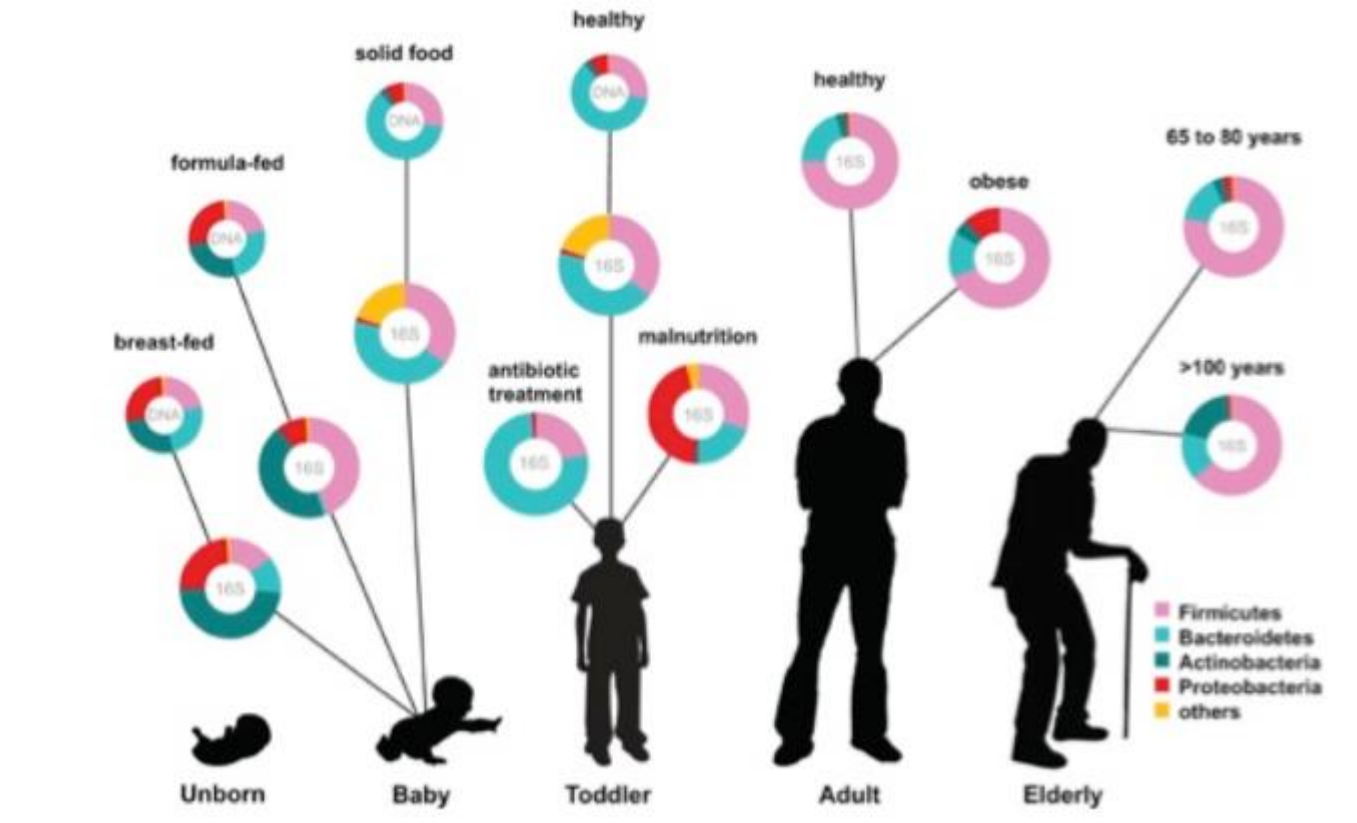
FRIEDNLY MICROBES

- 1,5 kilograms10 times more than human body cells

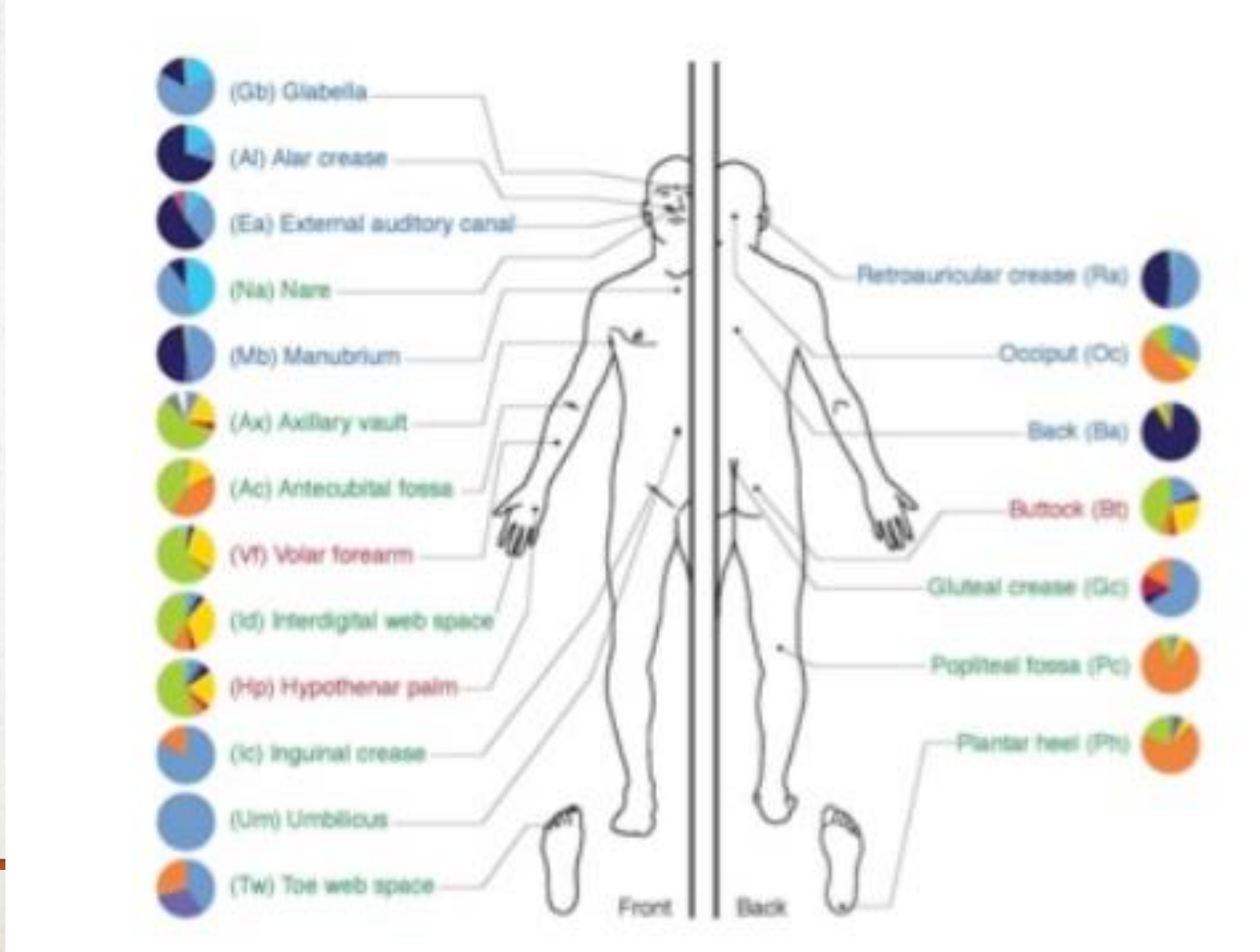
FRIEDNLY MICROBES

- Yoghurts, foods
- Probiotics

MICROBIOM AND AGE



MICROBIOME AND BODY LOCALIZATION



DANGEROUS (NOT FRIENDLY – ENEMY) - MICROBES

Infections

Spread by hands (unwashed)

Air dropplets

Vaccination

- Possible treated by antibiotics

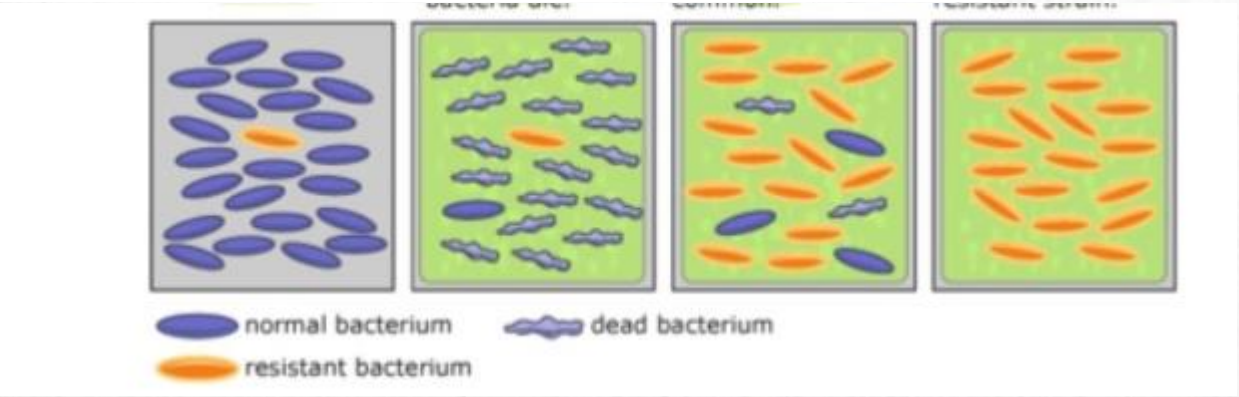
DANGEROUS (NOT FRIENDLY – ENEMY) - MICROBES

- Unwashed hands

DANGEROUS (NOT FRIENDLY – ENEMY) - MICROBES

Resistance to antibiotics – principle

(game on tablet available)



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NEW PROJECT BASED ON UVP MEDIPARK

- Long time strategic research (MoE)
  - 9 projects in 4 domains

    OpenMed II is key project based on UVP Medipark
- Projects with strategic private partners
  - 2 projects

MEDI PARK KOŠICE

THANK YOU FOR YOUR ATTENTION

MEDI PARK KOŠICE

PAVOL JOZEF ŠAFÁRIK UNIVERSITY IN KOŠICE
WISDOM OF THE PAST – KNOWLEDGE OF THE PRESENT – EDUCATION OF THE FUTURE

MEDI PARK KOŠICE