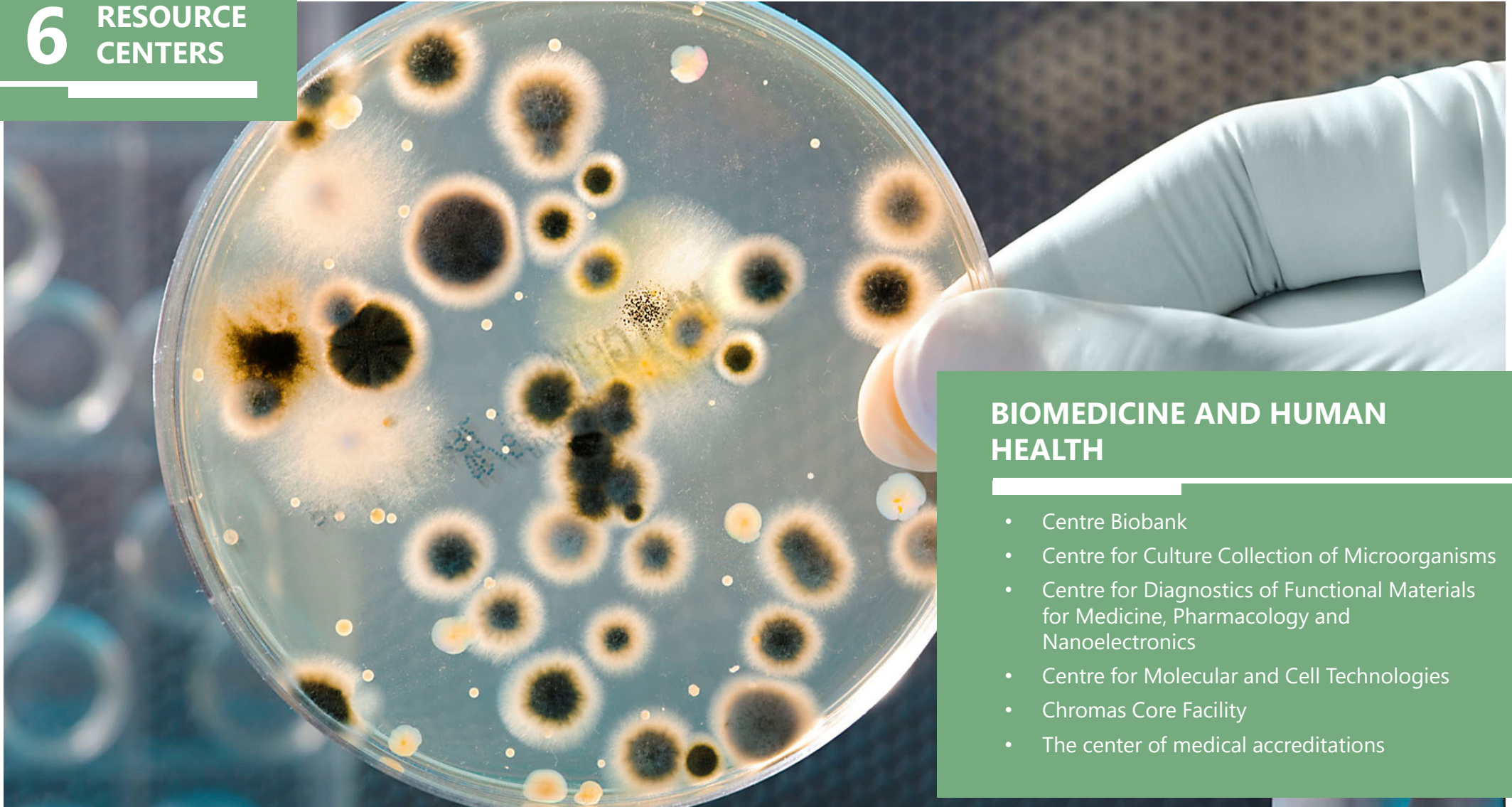


6 RESOURCE CENTERS



BIOMEDICINE AND HUMAN HEALTH

- Centre Biobank
- Centre for Culture Collection of Microorganisms
- Centre for Diagnostics of Functional Materials for Medicine, Pharmacology and Nanoelectronics
- Centre for Molecular and Cell Technologies
- Chromas Core Facility
- The center of medical accreditations

Biomedicine And Human Health



54

Number
of staff



100

Number
of users

Biomedicine And Human Health



136

Number
of projects in 2015



159

Number
of projects in 2016



PRIORITY RESEARCH AREAS

- Biobanking, Genomics, Transcriptomics, NGS sequencing, diagnostic of hereditary human disease, medical data storage
- Biodiversity and ecology of microorganisms
- Taxonomy and phylogeny of microorganisms
- Anti-microbial properties of different substances (films, suspensions and others)
- Allow test-objects for different investigations (medical, pharmacological, ecological and others)

Biomedicine And Human Health



PRIORITY RESEARCH AREAS

- The Chromas Core Facility is focused on innovative research projects in cellular biology, molecular and population genetics, developmental biology, microbiology and biomedicine
- Diagnostics and studies of new functional materials for medicine and medical technology, pharmacology, acoustoelectronics and micro- and nanoelectronics. Access is provided to conduct research in a broad spectrum of the physical properties of polymers, biopolymers, dispersed systems, liquid crystals, nanostructured composites and nanocomplexes in solutions and in solid state.



2 INTERNATIONAL PROJECTS

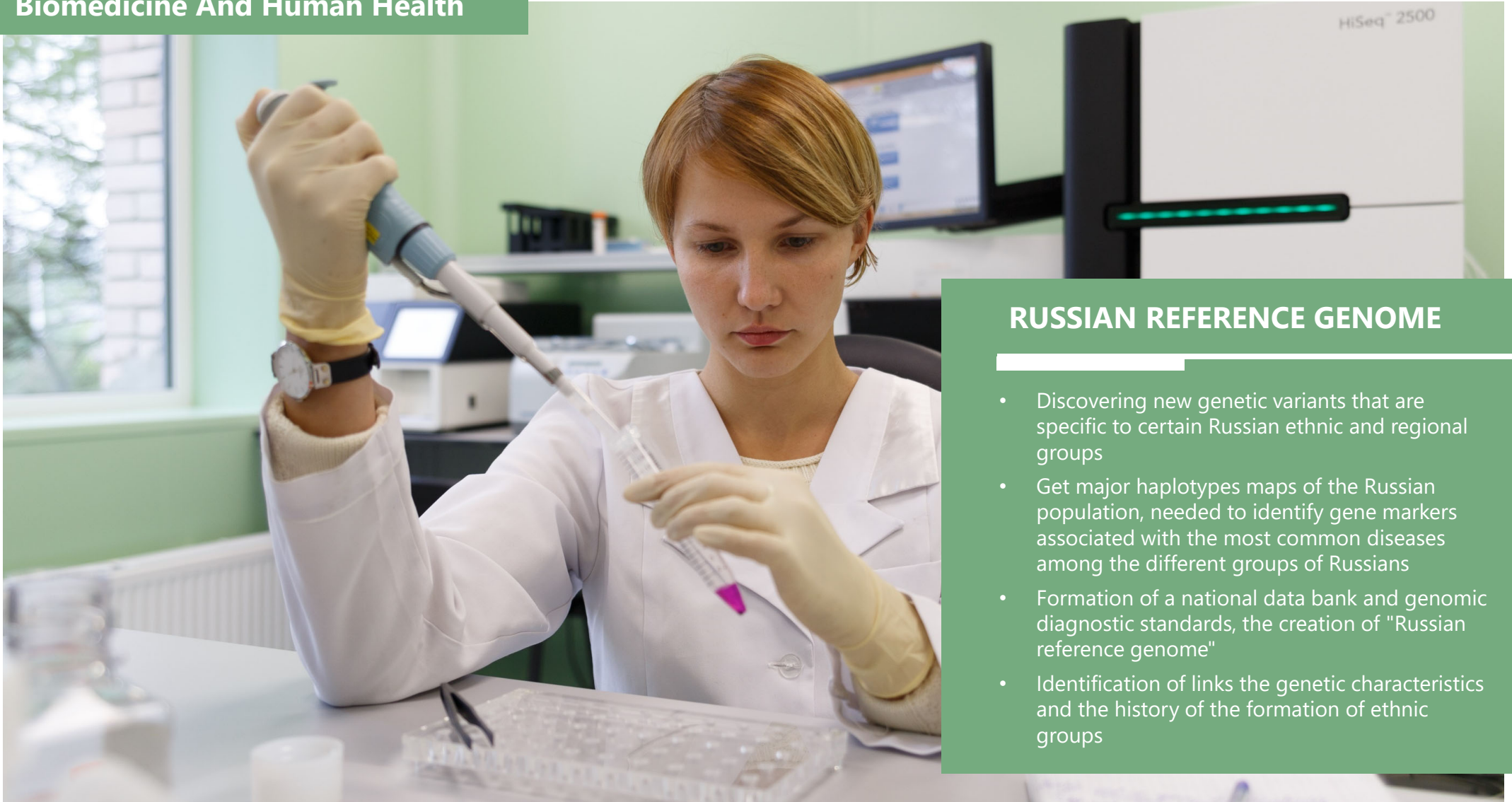
- Projects CARBALA, The 7th Framework Programme funded European Research and Technological Development
- Cytogenetic and genomic analysis of micro chromosomes in the chicken karyotype, Dr. Svetlana Galkina (Department of Genetics and Biotechnology, St. Petersburg University), Dr. Valerie Fillon (Le Centre de recherches, INRA de Toulouse, France), Dr. Denis M Larkin (Department of Comparative Biomedical Sciences, Royal Veterinary College, London, United Kingdom)





8 PROFESSIONAL DEVELOPMENT COURSES

- The basis of Next Generation Sequencing and data interpretation in clinical practice
- Fluorescent in situ hybridization (FISH)
- Current methods in proteomics and protein chemistry. Practical course
- Transmission Electron microscopy Technique for studying the ultrastructure of biological objects
- Flow Cytometry Technique in the medical and biological research
- Flow cytometry in immunology and biotechnology. Practical course
- Genetic engineering techniques. Basic practical course
- Palynology: identification of sample (goods) origin region



RUSSIAN REFERENCE GENOME

- Discovering new genetic variants that are specific to certain Russian ethnic and regional groups
- Get major haplotypes maps of the Russian population, needed to identify gene markers associated with the most common diseases among the different groups of Russians
- Formation of a national data bank and genomic diagnostic standards, the creation of "Russian reference genome"
- Identification of links the genetic characteristics and the history of the formation of ethnic groups



RUSSIAN REFERENCE GENOME

THE CURRENT STATE OF THE PROJECT:

- Prepared infrastructure and intellectual basis of the project;
- Concluded agreements with Partners (more than 20 organizations);
- Collected - 1021 blood samples from them:
 - partners 660 samples
 - SPSU 361 samples;
- A pilot whole genome sequencing of 12 samples;
- Prepares statistical and bioinformatic tools for genome analysis.