MINISTRY OF HEALTH
OF THE RUSSIAN FEDERATION
National Medical Research Radiological Centre



## ORGANIZATION OF CANCER RESEARCH AND CARE AT NATIONAL MEDICAL RESEARCH RADIOLOGICAL CENTRE (NMRRC)

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NMRRC General Director, Russia Academician of Russian Academy of Sciences





#### **Since October 2014**

National Medical Research Radiological Centre (NMRRC) of the Ministry of Health of the Russian Federation







### STRUCTURE

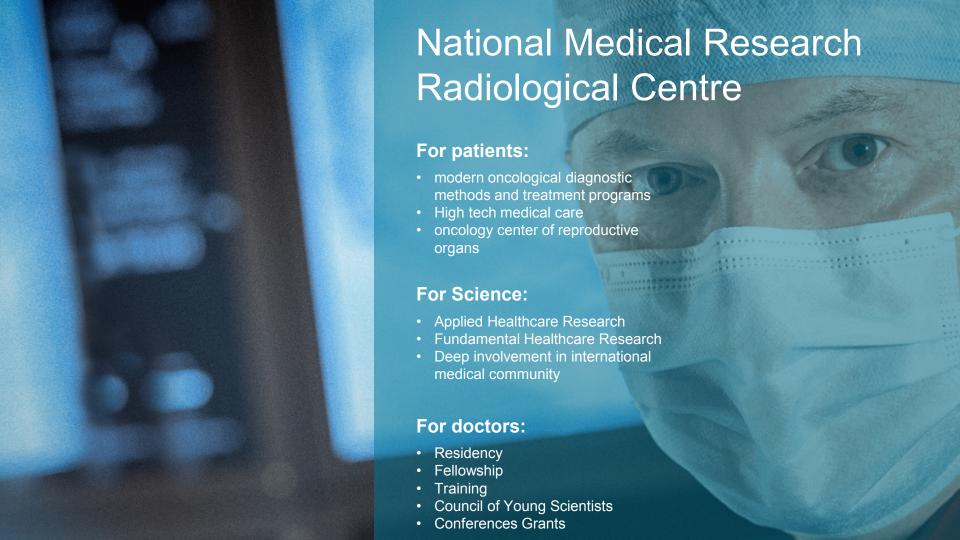
A. Tsyb Medical Radiology Research Centre

(Obninsk, Kaluga Region)

P. Herzen Moscow Oncological Research Institute (Moscow)



National Medical Radiology Research Centre (Obninsk, Kaluga Region) N. Lopatkin scientific Research Institute of Urology and Interventional Radiology (Moscow)







#### **Radiation Therapy**

various technologies of conformal X-ray therapy (3D, IMRT, IGRT) and non-conventional techniques of distant photon therapy, including the combination of the latter with local hyperthermia







#### Radiotherapeutics

- interstitial radiotherapy techniques, including sealed-source therapy of prostate cancer and oral cavity tumors
- radioiodine therapy for patients with thyroid cancer and thyrotoxicosis
- radionuclide therapy in case of bone metastases

X-Ray Surgery Endovascular Surgery







#### **Diagnostics**

new methods of diagnostics as a basis for personal treatment programs:

- Development of personalized mathematical algorithms for the use of tumor-associated markers (more than 60);
- Photodynamic diagnosis identification of hidden foci of early cancer;
- Laser endomicroscopy lifetime endoscopic evaluation of tumor heterogeneity







#### Chemotherapy

Extensive use of the so-called "smart" drugs.







#### **Surgical treatment**

- abdominal, thoracic, thoraco-abdominal surgeries, breast and skin reconstructive surgery, microsurgery, oncologic orthopedics, neurosurgery, oncourology, gynecologic oncology, gynecology (including IVF), X-ray surgery, urology, kidney transplantation and dialysis.
- necessary multiprofile high tech medical care.
- the use of modern tools and supplies, including microsurgical, endoscopic, endovascular, laser surgery, etc. ensures the quality of service.



# P. Hertsen Moscow Oncology Research Institute

The oldest cancer clinic in Europe

established in 1898



- Outpatient clinic
- Scientific and educational department
- Clinic of experimental veterinary

- 18 clinical and experimental departments
- 7 diagnostic departments
- 3 centers in the Institute (Centre for informational technologies and epidemiology, Centre for palliative care, Centre for laser and photodynamic therapy)



### P. Hertsen Moscow Oncology Research Institute

#### **Annually:**

- 8000 cases of specialized treatment in hospital
- 2500 cases of day-time hospital treatment



- 1100 employees
- 174 research scientists
- 355 beds

- 60% high-tech medical care
- 49000 outpatients



#### Founded in Obninsk in 1962

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#### **Leader in development of:**

- methods for radiation therapy effectiveness improvement;
- radionuclide therapy treatments for cancer, metastases and palliative remedy;
- radiotherapeutics and radiomodifiers

#### 1700 workers including:

- 310 Researchers:
  - 60 DSs including
  - 30 Professors and
  - 172 PhDs



#### **Directions of work:**

- Radiation Therapy
- Radionuclide Therapy
- Personalized therapy



- Radiation Epidemiology and Radiation Dosimetry
- Training in Radiotherapy, Radiology, Radiobiology

- Cellular and Molecular Radiobiology and Genetics
- Radiopharmacy, Pharmacy



- 16 clinical divisions
- 10 diagnostic clinical divisions and laboratories
- Outpatients clinic



- Experimental-biological clinic with vivarium
- Scientific and educational department

- 11 experimental laboratories
- National Radiation
   Epidemiological Registry



#### **Annually:**

- 10250 cases of specialized treatment in hospital
- **40 000** outpatients



- 403 nursers and laboratory assitants
- 400 beds

- 60% high-tech medical care
- 134 physicians



### N. Lopatkin Scientific Research Institute of Urology and Interventional Radiology

 Founded in 1979 as the Head federal urological institution



51, 3rd Parkovaya street. 105425, Moscow, Russian Federation Tel.: +7(495)367-75-87 http://uro.ru

 Leader of organizationalmethodical provision in Urology as a field of Russian health care



### N. Lopatkin Scientific Research Institute of Urology and Interventional Radiology

- Oncourology
- Urodynamics and functional disorders of pelvis organs
- Andrology and human reproduction



- 5 Professors
- **54** MDs
- 21 PhDs

- 7 clinical units
- 5 diagnostic units
- 16 scientific divisions and labs
- Outpatients



### N. Lopatkin Scientific Research Institute of Urology and Interventional Radiology

- Advanced methods
- Laparoscopic
- Endovideosurgery
- ESWL and contact laser lithotripsy
- Microsurgery
- Reconstructive plastic surgery



- 3200 treated patients
- 32000 bed days
- 3600 surgeries
- 60% high-tech medical care
- 12000 outpatient consultations
- **150** beds

- Transplantations of organs and tissues
- Brachitherapy
- Ablative technologies: HIFU, Crioablation, photodynamic therapy, RFA





## National Medical Radiology Research Centre:

International cooperation







Collaboration with international organizations (expertize, data exchange, participation in meetings and conferences)













## **National Medical Radiology Research Centre:**







#### International cooperation











































## National Medical Radiology Research Centre:



International cooperation

