

Nuclear Technology for Human Life in 21 Century

[2d. Information letter and invitation to participate in](#)

International Scientific Session
on
Nuclear Medicine and Radiopharmaceutics



will be held:

in the Medical Radiological Research Center
of the Russian Academy of Medical Sciences
(MRRC RAMS)
Obninsk, Russian Federation
4 -16 December, 2006



organizers:

Russian Association on Nuclear Science and Education (RANSE)
MRRC RAMS
Government of Kaluga Region
Administration of the Scientific city Obninsk
Russian Academy of Medical Sciences (RAMS)
Ministry of Health and Social development of Russian Federation
Federal Agency for Atomic Energy of Russian Federation

in cooperation with:

International Atomic Energy Agency
World Nuclear University



Obninsk, 2006

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1. Goal

The International Scientific Session on Nuclear Medicine and Radiopharmaceutics (further on – Session) is being organized by Russian Association of Nuclear Science and Education (RANSE) in cooperation with International Atomic Energy Agency (IAEA) and World Nuclear University (WNU). It will be held in Medical Radiological Research Center of Russian Academy of Medical Sciences (MRRC RAMS) Obninsk, Russian Federation, from 4 to 16 December 2006 r. The goal of the Session is to transfer of modern knowledge and expertise to young scientists and specialists involved in diagnostic and therapeutic nuclear medicine and development of new radiopharmaceuticals (RPH).

2. Information on Medical Radiological Research Center of Russian Academy of Medical Sciences (MRRC RAMS)

MRRC RAMS (see also, please, <http://www/mrrc.obninsk.ru/english/>) is leader in Russian Federation on medical radiology and radiation medicine. It hires more than 1600 staff, 400 of which are scientists. To develop new diagnostic and treatment technologies on the basis of both ionizing and non-ionizing radiations is one of the missions. A power experimental infrastructure and hospital of 400 beds there are in the center. A number of the scientific laboratories and clinical divisions are directly involved in solution of the nuclear medicine problems. They are: laboratory of experimental nuclear medicine with the unite of "Isotope" as well as clinical divisions dealing with radionuclide diagnosis, "in vitro" diagnosis, radionuclide therapy using sealed and unsealed sources of radiation. The former has got 20 individual wards for short-term staying of patients whom therapeutic activities of unsealed radionuclides are administered. The wards are furnished with facilities to protect medical staff from irradiation as well as with sewerage system for deactivation and devastation of residence effluents and air. There are also facilities to safety manage of therapeutic RPH of unlimited activities.

MRRC RAMS is World Health Organization (WHO) collaborating center on radiation epidemiology and training, which bears witness of significant contribution its scientists in mitigating of medical problems of the Chernobyl accident.

3. Information on Obninsk

It is not by chance Obninsk has been chosen as a place to carry out the Session. It is known as a leader in Russian Federation in developing and producing new RPH as well as new nuclear technologies for diagnosis and treatment purposes. The RPH developed on the basis of ^{131}I , $^{99\text{m}}\text{Tc}$, ^{153}Sm , ^{125}I etc. are applied in MRRC RAMS and the other medical institutions of Russian Federation. RPH's on the basis of the generator radionuclide ^{188}Re are being tested before the use in clinic. The resources of three scientific centers of Obninsk are involved in the process. They are as follows: MRRC RAMS, Obninsk affiliation of State Scientific Center - Institute for physical chemistry named by L.Karpov and State Scientific Center- Institute for Physics and Power Engineering named by academician F.Leipunsky.

The city of Obninsk is known as the cradle of peaceful atomic energy. The First-in-the-World nuclear power plant was put into the being here in 1954. The city keeps developing as nuclear city now. There are 12 state research institutes dealing with problems of nuclear energy, nuclear medicine, radiation pharmacology, radiation chemistry, response of agriculture and environment to radiation pollution etc. By the decree of President of Russian Federation issued in 2001 Obninsk was granted the honored status of the first in Russian Federation City of Science.

4. Information on Russian Association on Nuclear Science and Education (RANSE)

RANSE– is one of the initiators and basic organizers of the session. It was founded in 2005. Big scientific and educational institutions of Russian Federation are its founders. There are among them Obninsk State Technical University for Nuclear Power Engineering, Russian Scientific Center "Kurchatov Institute" (Moscow), MRRC RAMS (Obninsk), Russian State Scientific Center - "Institute for theoretical and experimental physics" (Moscow) and the other.

The main goal the RANSE activity is preservation and transfer of knowledge on nuclear power engineering and adjacent fields relating to nuclear science. They are – medicine, agriculture, ecology and so on. RANSE closely cooperates in its activity with leading research and educational institutions of Russian Federation as well as with international organizations including IAEA and WNU.

5. Some specific features of the program and organization of the Session

The Session is designated for young scientists and specialists in diagnostic and therapeutic nuclear medicine and radiopharmacy (see Supp.1). Leading Russian and foreign specialists recommended by IAEA and WNU will serve as lecturers. The lecture and demonstration materials are planned to be issued in English and Russian on CD and possibly-published. Participants will be acquainted with activities of scientific laboratories and departments of MRRC RAMS, Obninsk State Technical University for Nuclear Power Engineering and RANSE.

6. Working languages

Russian and English will be working languages of the Session. Simultaneous or consecutive interpretation will be provided.

7. Information for participants (observers) and lecturers

Potential participants of the Session should fill in the application attached (Suppl.2) and send (transmit) it to the contact persons (see below) but not later than September 1 2006. The official invitation to attend the Session and arrange the visa will be send to all the applicants.

Potential lecturers, that is to say, those who desires and could serve as a lecturer can address to organizing committee (Suppl. 3) with the suitable suggestion. In the case the candidate to be a lecturer should send to organizing committee CV and the lecture in written form in Russian or English. Suggestions on modifications or amendments of the program of the scientific Session can also be forwarded to organizing committee for the consideration.

The program (Suppl. 4) and organizing committees will take a decision on the suggestions and inform the authors in due time on the decision made.

8. Registration fee

It is 700 € for fellows and observers. The sum will be used to contribute into covering the following expenditures: preparation of teaching materials, hotel accommodation and meals, coffee breaks, the Session party, regional social program, local transportation including picking up in airports and moving from Obninsk to the airports. The registration fee will be waived for invited lecturers and experts. All accompanied persons should pay 50% registration fee. They should bear themselves all the expenditures of their staying in Obninsk.

To get financial support in covering the expenditures (round air tickets, registration fee, per diem etc.) participants and invited lecturers may address with the request to IAEA through their national representatives.

9. Hotel accommodation

Comfortable Obninsk hotels will be offered to participants, observers, lecturers and experts as well to accompanied persons according to their choice after the registration. The hotels are situated at the distance of 0,5 – 1,5 km from the conference meeting hall of MRRC RAMS. More details on hotels will be done in the next information letter or individually after the registration of the participants, observers, lecturers and experts as well to accompanied persons.

10. Airport and transportation

International airports of Moscow (Sheremetievo-2, Domodedovo, Vnukovo) are at the distance of 80-140 km from Obninsk. The hosts will provide service on picking up those who arrive from abroad, their transportation to hotels in Obninsk and moving to airports according to the detailed information sent by each quests to organizing committee on dates and time of arrivals and departures, and flight numbers.

11. Social program

Excursions to historical places of Kaluga Region as well as to Moscow theaters and exhibitions on separate arrangements and payments to cover transportation, theater (exhibition) tickets, guide service, food etc. will be offered to participants, observers, lecturers and experts as well to accompanied persons.

12. Contact persons

Dr. Yuri SKOROPAD, PhD, MD

Deputy Director on Sciences

Medical Radiological Research Center of Russian Academy of Medical Sciences

Vice Chairman

Program and Organizing Committees of the scientific Session on Nuclear Medicine and Radiopharmaceutics.

Address:

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Telephone: 7(495) 967 19 71

Telephone/Fax: 7(495) 956 14 40 and 7 (48439) 41199

e-mail: yskoropad@mrrc.obninsk.ru

mrrc@mrrc.obninsk.ru

as well as:

Professor Vladimir ARTISYUK

Prorector

Obninsk State Technical University for Nuclear Power Engineering

Vice Chairman

Organizing Committees of the scientific Session on Nuclear Medicine and Radiopharmaceutics

Scientific Secretary

Program Committees of the scientific Session on Nuclear Medicine and Radiopharmaceutics

Coordinator of RANSE.

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249030, Obninsk, Kaluga oblast, Russian Federation

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e-mail: artisyuk@iate.obninsk.ru

**Provisional program
of the first scientific session
On Nuclear Medicine and Radiopharmaceutics
to be held in MRRC RAMS¹, Obninsk, Russian Federation
from 4 to 16 December, 2006**

1. Introductory lectures

- Dr. A.Tsyb, Professor, Academician of RAMS, Director of MRRC RAMS, Chairman of Russian Scientific Commission on Radiation Protection, Obninsk.
- Prof. N.Salnikov, Rector of Obninsk State Technical University for Nuclear Power Engineering.
- Prof. W.Burkart, Deputy Director General, Head of Department of Nuclear Sciences and Applications, International Atomic Energy Agency (tentative).
- Representative of World Nuclear University.
- Dr. P.Andreo, Director of Division of Human Health, International Atomic Energy Agency (tentative).
- Dr. M.Dondi, Head of Nuclear Medicine Section, Division of Human Health, International Atomic Energy Agency (tentative).
- Prof. Y.Yanev, Head of Unit of Nuclear Knowledge Management, Department of Nuclear Energy, International Atomic Energy Agency (tentative).

2. Invited lectures

(a) Medical Radiological Research Center – National Leader on Medical Radiology and Radiation Medicine.

Dr. A.Tsyb, Professor, Academician of RAMS, Director of MRRC RAMS, Chairman of Russian Scientific Commission on Radiation Protection, Obninsk.

(b) Nuclear Medicine - current status and perspectives.

Dr. A.Tsyb, Professor, Academician of RAMS, Director of MRRC RAMS, Chairman of Russian Scientific Commission on Radiation Protection, Obninsk.

(c) State Technical University for Nuclear Power Engineering – unique educational institution in Russian Federation.

Dr.N.Salnikov, Professor, Rector, State Technical University for Nuclear Power Engineering (STUNPE), Obninsk.

¹ Medical Radiological Research Center of Russian Academy of Medical Sciences

2.02 Technical Tour:

- (a) State Technical University for Nuclear Power Engineering: Labs and Facilities

3. Topic: Radiopharmaceutical chemistry of ^{99m}Tc and ^{188}Re and developing on their basis of radiopharmaceutics for diagnosis and treatment of cancer and non-cancer diseases

3.01 Lectures:

- (a) Development and technology of preparation of reagent kits to be supplied with the ^{99m}Tc and ^{188}Re generators.

Dr. V. Petriev, Candidate of biological sciences, Senior Researcher, Laboratory of experimental nuclear medicine, MRRC RAMS, Obninsk.

- (b) Quality assurance control of the reagent kits to be supplied with the ^{99m}Tc and ^{188}Re generators as well as radiopharmaceutics loaded with the radionuclides.

Dr. N. Epshtein, Candidate of pharmaceutical sciences, Docent, Expert of Chemical Commission of the Pharmaceutical Committee under Ministry of Health and Social Development of Russian Federation, Laboratory of experimental nuclear medicine, MRRC RAMS, Obninsk.

3.02 Case Studies:

- (a) Reagent kits for the ^{188}Re generators - technology of preparation.

Dr. V. Petriev, Candidate of biological sciences, Senior Researcher, Laboratory of experimental nuclear medicine, MRRC RAMS, Obninsk.

- (b) Analyze of model reagents to the ^{99m}Tc and ^{188}Re generators.

Dr. N. Epshtein, Candidate of pharmaceutical sciences, Expert of Chemical Commission of the Pharmaceutical Committee under Ministry of Health and Social Development of Russian Federation, Docent, Laboratory of experimental nuclear medicine, MRRC RAMS, Obninsk,
and

Dr. A. Shilina, Senior Lecturer, State Technical University on Atomic Energy, Obninsk.

and

D. Milinchuk, Professor, Chairman, Chair of the general and special chemistry, State Technical University for Nuclear Power Engineering, Obninsk

Experimental tests on detection of both ascorbic acid and bivalent tin in the reagents using spectrometry and potentiometric titration will be demonstrated.

- (c) Analyze of radiopharmaceutics with indicator tubes.

Dr. N. Epshtein, Candidate of pharmaceutical sciences, Expert of Chemical Commission of the Pharmaceutical Committee under Ministry of Health and Social Development of Russian

Federation, Docent, Laboratory of experimental nuclear medicine, MRRC RAMS, Obninsk
and

Dr. E.Mirosanova, Doctor of chemical sciences, Professor, Chair of analytical chemistry,
Faculty of chemistry, Moscow State University named by M.Lomonosov, Moscow.

and

Dr.V.Milinchuk, Professor, Chairman, Chair of the general and special chemistry, State
Technical University for Nuclear Power Engineering, Obninsk

Express analyze of bivalent tin in the reagent to ^{99m}Tc generators using indicator tubes will be demonstrated.

4. Topic : Radionuclide diagnosis

4.01 Lectures:

(a) Radionuclide diagnosis of tumors.

Dr. G. Davidov, Candidate of medical sciences, Head, Division of nuclear medicine (diagnostic),
MRRC RAMS, Obninsk.

(b) PET – the possibilities of the method.

I.Aslanidi, professor, Deputy director on sciences, Head, Nuclear medicine department,
candidate of medical sciences O. Mukhortova, candidate of medical sciences I.V.Shurupova,
candidate of chemical sciences, Head lab. of radiochemistry E.P. Derevianko, Research center on
heart and vessel surgery by name A.N.Bakulev RAMS, Moscow.

(c) Scintigraphic diagnosis of inflammation

Y. Lishmanov, professor, alternative member to RAMS, Head, lab. of nuclear medicine
researches, Research Institute of Cardiology of the Tomsk Research Center of the Siberian
Branch of RAMS, Tomsk

(d) Radionuclide diagnosis of brain vessels abnormalities.

Dr. (Ms) E.Gulevitch, Candidate of medical sciences, Senior Researcher, Division of nuclear
medicine, MRRC RAMS, Obninsk.

(e) Clinical application of X-Ray fluorescent analyses.

Mr. V. Zaichik, Candidate of technical sciences, Senior Researcher, Division of nuclear
medicine (diagnostic), MRRC RAMS, Obninsk.

4.02 Technical Tour:

(a) Nuclear medicine laboratories and demonstration of radionuclide methods and technology including

- preparation of ^{99m}Tc radiopharmaceuticals, measuring of its activity, calculation of the activity to be administered into human body, injection procedure;
- examination of patients on dedicated nuclear medicine equipment;
- computerized treatment and analysis of the diagnostic data, writing of the doctor's conclusion;
- demonstration of the archive scintigrammes and discussion of the most interested cases.

Technical tour will be guided by Senior Researchers of the Division of Nuclear Medicine, MRRC RAMS, Obninsk.

5. **Topic: In vitro diagnosis of cancer**

5.01 **Lectures:**

- (a) *In vitro* detection of thyroid globulins and calcitonin for diagnosis of thyroid cancer, post operation monitoring of patient status and effectiveness of the treatment.

Lecturers: Dr. E.Parshkov, Doctor of medical sciences, Head, Laboratory of *in-vitro* radioimmunoassay, MRRC RAMS, Obninsk.

5.02 **Case Studies :**

- (a) Technology of thyroid globulins and calcitonin detection in lymph node samples of patients affected with medullar type of thyroid cancer.

Dr. E.Parshkov, Doctor of medical sciences, Head, Laboratory of *in-vitro* radioimmunoassay, MRRC RAMS, Obninsk.

6. **Topic: Radiotherapy with unsealed radionuclides**

6.01 **Lectures:**

- (a) Physical and biological bases. History, experience, future trends.

Dr. P. Garbuzov, Candidate of medical sciences, Senior Researcher, Division of nuclear medicine (radiotherapeutic), MRRC RAMS, Obninsk.

- (b) Radioiodine therapy for thyroid diseases (thyroid cancer, diffuse toxic goiter). Methods, indications, contraindications, results, complications.

Dr. P. Garbuzov, Candidate of medical sciences, Senior Researcher, division of nuclear medicine (radiotherapeutic), MRRC RAMS, Obninsk.

- (c) Unsealed radionuclides in palliative treatment for bone metastases with the special emphases to use of Samarium-oxabiphor (^{153}Sm).

Dr. V. Krylov, Candidate of medical sciences, Senior Researcher, Division of nuclear medicine (radiotherapeutic), MRRC RAMS, Obninsk.

- (d) Radionuclide therapy for rheumatic diseases.

Dr. V. Krylov, Candidate of medical sciences, Senior Researcher, division of nuclear medicine (radiotherapeutic), MRRC RAMS, Obninsk.

- (e) Interstitial and endolymphatic treatment with radiocolloids – technological aspects.

Dr. Yu. Skoropad, Doctor of medical sciences, Deputy director on Sciences, MRRC RAMS, Obninsk.

7. Topic: Radiotherapy with sealed radionuclides

7.01 Lecture:

- (a) Brachytherapy for prostate cancer with ^{125}I micro sources.

Dr. O.Karyakin, doctor of medical sciences, Head, Division of urology, MRRC RAMS, Obninsk.

7.02 Case Studies :

- (a) Insertion of ^{125}I micro sources into the prostate affected with cancer under the control of spiral CT.

Dr. P.Sviridov, Candidate of medical sciences, Senior Researcher, Division of urology, MRRC RAMS, Obninsk.

- (b) Dosimetry and treatment planning of brachytherapy for prostate cancer with ^{125}I micro sources and verification of dose distributions after the insertions.

Ms. N.Panarina, Medical physicist, Division of CT, MRRC RAMS, Obninsk.

8. Round table:

«Role of nuclear technologies, knowledge and education for Human in XXI century»

Panelists : A.TSYB, academician of RAMS, Director of MRRC RAMS, Obninsk

Y. LISHMANOV, professor, alternative member to RAMS, Head, lab. of nuclear medicine researches, Research Institute of Cardiology of the Tomsk Research Center of the Siberian Branch of RAMS, Tomsk

I.ASLANIDI, professor, Deputy director on sciences, Head, Nuclear medicine department, Research center on heart and vessel surgery by name A.N.Bakulev RAMS, Moscow.

R.ALEXACHIN, academician of Russian agriculture academy, Director of Research Institute of agriculture radiology, Obninsk

N.PONOMAREV-STEPNOY, academician of Russian academy of sciences, Moscow

V.MUROGOV, professor, OSTUNPE, Obninsk

N. SALNIKOV, professor, rector, OSTUNPE, Obninsk

A. GINSBOURG, Doctor of physics and mathematics, Institute for physics of atmosphere of Russian academy of sciences, Deputy director on sciences, Moscow

Y.YANEV, International Atomic Energy Agency

A.KOSILOV, International Atomic Energy Agency

**International Scientific Session
On Nuclear Medicine and Radiopharmaceutics**

**to be held in MRRRC RAMS¹, Obninsk, Russian Federation,
from 4 to 16 December, 2006**

Participation Form

Prof. Dr. Mr. Ms Surname.....First Name(s).....
Institution.....
Department
Address
.....
Phone.....Faxe-mail.....

- I plan to attend the Session as (lecturer, fellow, observer) - please, underline
- I plan to pay the fee of EURO 700 (350) (cash , trough a bank, in another way), please underline
- I plan to be accompanied by(please specify)
- A single (double) room is required in a hotel (please underline)
- Preliminary date of arrival by plane N ath..... m
- Airport destination in Moscow
- The other important details (please specify)
- I need more information on (please specify)

Short Curriculum Vitae (CV)

Date:

Signature:

Please return this Participation Form as soon as possible, but **not later** than September 01, 2006 to Dr.Y.Skoropad,

MRRRC RAMS, Koroliova str. 4, 249036 OBNINSK,
Kaluga Region, Russian Federation
e-mail: yskoropad@mrrc.obninsk.ru
Tel./Fax:: 7(495) 956 14 40, and 7(48439) 4 11 99, Tel.: 7 (495) 967 1971

or to Professor V.Artisyuk
Student campus, 1
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e-mail: artisyuk@iate.obninsk.ru

First Scientific Session
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 Obninsk, Russian Federation
 4-16 December, 2006.

Organizing Committee

1.	Chairman Tsyb A.F.	Director of Medical Radiological Research Center of Russian Academy of Medical Sciences, Vice-President of RANSE
2.	Vice-Chairman Artisyuk V.	Obninsk State Technical University For Nuclear Power Engineering
3.	Vice-Chairman Skoropad Yu. D.	Medical Radiological Research Center of Russian Academy of Medical Sciences, Deputy Director on Sciences
4.	Murogov V.	Obninsk State Technical University For Nuclear Power Engineering
5.	Korovin Yu.	Obninsk State Technical University For Nuclear Power Engineering
6.	Tsybalyuk V.P.	Obninsk State Technical University For Nuclear Power Engineering
7.	Dayneko I.	Government of Kaluga, Department of Innovation
8.	Efimkova I.	Federal Agency for Atomic Energy of Russian Federation
9.	Kalendarishvili A.	Russian Research Center "Kurchatov Institute" of Russian Academy of Sciences
10.	Ms. Tsyb E. A.	Medical Radiological Research Center of Russian Academy of Medical Sciences, Senior Researcher
11.	Burkart W.	Deputy Director General, Head, Department of Nuclear Sciences and Application, International Atomic Energy Agency
12.	Andreo P.	Director, Division of Human Health, International Atomic Energy Agency
13.	Kossilov A.	Department of Nuclear Energy, International Atomic Energy Agency

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Program Committee

1.	Chairman Pnomarev-Stepnoy N.	Vice-President of Russian Research Center "Kurchatov Institute" of Russian Academy of Sciences, President of RANSE
2.	Vice-Chairman Skoropad Yu.	Medical Radiological Research Center of Russian Academy of Medical Sciences, Deputy Director on Sciences
3.	Scientific Secretary Artisyuk V.	Obninsk State Technical University For Nuclear Power Engineering
4.	Vice-Chairman Salnikov N.	Obninsk State Technical University For Nuclear Power Engineering
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6.	Korovin Yu.	Obninsk State Technical University For Nuclear Power Engineering
7.	Ostapets V.	Obninsk State Technical University For Nuclear Power Engineering
8.	Ginsbourg A.	Institute for Physics of Atmosphere of Russian Academy of Sciences, Deputy Director on Sciences
9.	Kryuchkov E.F.	Moscow Engineering and Physics Institute
10.	Saenko A. S	Medical Radiological Research Center of Russian Academy of Medical Sciences, Deputy Director on Sciences
11.	Dondi M.	Head of Nuclear Medicine Section, Division of Human Health, International Atomic Energy Agency
12.	Yanev Y.	Department of Nuclear Energy, International Atomic Energy Agency