NUCLEAR MEDICINE Syllabus, 2020/2021 for the 4th year, 6-year programme, group 2

Coordinator: Małgorzata Trofimiuk-Müldner
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Department of Endocrinology JUMC, ul. Kopernika 17, 31-501 Krakow

Venue: CDK, Łazarza 16.
Total number of hours – 20

To get credit in nuclear medicine, the presence and active contribution are required.
Credit will be awarded based on:
- the obligatory short test results (at least 50% of correct answers, the test will be scheduled on the last day of seminars)
- the attendance of 80%.

1. Day 1 – May 3rd, 2021 Monday- National Holiday

2. Day 2 – May 4th, 2021 (11.00-15.00) Tuesday, CDK, Lecture Hall A

- Principles of nuclear medicine 2: imaging principles – scintigraphy including SPECT, PET, hybrid systems SPECT/CT, PET/CT, PET/MRI. (45 minutes) – *Wioletta Lenda-Tracz, M.Sc., PhD.*
- Principles of nuclear medicine 3: radiation protection. (45 minutes) – *Wioletta Lenda-Tracz, M.Sc., PhD.*
- Neuroendocrine neoplasms (NEN): role of nuclear medicine in diagnostics and therapy (PRRT).* (90 minutes) – *Marta Opalińska, MD, PhD.*
- Urogenital system imaging (focus on kidney scintigraphy and PET in prostate cancer). Imaging of liver haemangiomas. (45 minutes) - *Marta Opalińska, MD, PhD.*

3. Day 3 – May 5th, 2021 (11.00-15.30) Wednesday,

- Principles of nuclear medicine 1: definition of nu **CDK, Lecture Hall A** clear medicine; ionizing radiation, types of radiation, radioisotopes for diagnostics and treatment, production of isotopes, radiotracers/radiopharmaceuticals. (90 minutes) - *Ibraheem Al Maraih, MD.*
- Thyroid cancer: from diagnosis to therapy and follow up.* (90 minutes) – *Małgorzata Kieć-Klimczak, MD, PhD.*
- PET-CT in oncology. (90 minutes) - *Małgorzata Kieć-Klimczak, MD, PhD.*

4. Day 4 – May 6th, 2021 (11.00-15.00) Thursday CDK, Lecture Hall A

- Central nervous system imaging (dementia, degenerative movement disorders (Parkinson's disease and Parkinsonian syndromes), epilepsy). (45 minutes) - *Ibraheem Al Maraih, MD.*
- Nuclear cardiology (myocardial perfusion imaging – SPECT, PET; myocardial viability imaging).* (90 minutes) - *Ibraheem Al Maraih, MD.*
- Other applications of nuclear medicine in endocrinology: parathyroid imaging, pheochromocytoma and paraganglioma imaging and therapy (45 minutes) - *Ibraheem Al Maraih, MD.*
- Introduction to immunoscintigraphy. Basics of nuclear imaging of inflammation. Sentinel lymph nodes imaging. (45 minutes) - *Ibraheem Al Maraih, MD.*

5. Day 5 – May 7th, 2021 (11.00-14.45) Friday CDK, Lecture Hall A

- Benign thyroid diseases and nuclear medicine (diagnostics and therapy).* (90 minutes) - *Marta Opalińska, MD, PhD.*
- Nuclear imaging of bones (bone scintigraphy, NaF PET/CT). Therapy of bone metastases. Radionuclide synovectomy.* (90 minutes) - *Marta Opalińska, MD, PhD.*
- Test

Notice: * - seminar with a case presentation included

NUCLEAR MEDICINE Syllabus, 2020/2021 for the 4th year, 6-year programme, group 1

Coordinator: Małgorzata Trofimiuk-Müldner
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Venue: CDK, Łazarza 16.
Total number of hours – 20

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- the attendance of 80%.

1. Day 1 – May 17th, 2021 (11.00-14.15) Monday, CDK, Lecture Hall A

- Principles of nuclear medicine 1: definition of nuclear medicine; ionizing radiation, types of radiation, radioisotopes for diagnostics and treatment, production of isotopes, radiotracers/radiopharmaceuticals. (90 minutes) - *Ibraheem Al Maraih, MD.*
- Principles of nuclear medicine 2: imaging principles – scintigraphy including SPECT, PET, hybrid systems SPECT/CT, PET/CT, PET/MRI. (45 minutes) – *Wioletta Lenda-Tracz, M.Sc., PhD.*
- Principles of nuclear medicine 3: radiation protection. (45 minutes) – *Wioletta Lenda-Tracz, M.Sc., PhD.*

2. Day 2 – May 18th, 2021 (11.00-14.15) Tuesday, CDK, Lecture Hall A

- Neuroendocrine neoplasms (NEN): role of nuclear medicine in diagnostics and therapy (PRRT).* (90 minutes) – *Marta Opalińska, MD, PhD.*
- Nuclear imaging of bones (bone scintigraphy, NaF PET/CT). Therapy of bone metastases. Radionuclide synovectomy.* (90 minutes) - *Marta Opalińska, MD, PhD.*

3. Day 3 – May 19th, 2021 (11.00-15.00) Wednesday CDK, Lecture Hall A

- Thyroid cancer: from diagnosis to therapy and follow up.* (90 minutes) – *Małgorzata Kieć-Klimczak, MD, PhD.*
- PET-CT in oncology. (90 minutes) - *Małgorzata Kieć-Klimczak, MD, PhD.*

4. Day 4 – May 20th, 2021 (11.00-15.00) Thursday 11-13.00 CDK Lec Hall C /13-15.00 S1

- Central nervous system imaging (dementia, degenerative movement disorders (Parkinson's disease and Parkinsonian syndromes), epilepsy). (45 minutes) - *Ibraheem Al Maraih, MD.*
- Nuclear cardiology (myocardial perfusion imaging – SPECT, PET; myocardial viability imaging).* (90 minutes) - *Ibraheem Al Maraih, MD.*
- Other applications of nuclear medicine in endocrinology: parathyroid imaging, pheochromocytoma and paraganglioma imaging and therapy (45 minutes) - *Ibraheem Al Maraih, MD.*
- Introduction to immunoscintigraphy. Basics of nuclear imaging of inflammation. Sentinel lymph nodes imaging. (45 minutes) - *Ibraheem Al Maraih, MD.*

5. Day 5 – May 21st , 2021 (11.00-14.00) Friday CDK, Lecture Hall C

- Benign thyroid diseases and nuclear medicine (diagnostics and therapy).* (90 minutes) - *Marta Opalińska, MD, PhD.*
- Urogenital system imaging (focus on kidney scintigraphy and PET in prostate cancer). Imaging of liver haemangiomas. (45 minutes) - *Marta Opalińska, MD, PhD.*
- Test

Notice: * - seminar with a case presentation included

NUCLEAR MEDICINE Syllabus, 2020/2021 for the 4th year, 6-year programme, group 3

Coordinator: Małgorzata Trofimiuk-Müldner
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Department of Endocrinology JUMC, ul. Kopernika 17, 31-501 Krakow

Venue: CDK, Łazarza 16.
Total number of hours – 20
To get credit in nuclear medicine, the presence and active contribution are required.
Credit will be awarded based on:
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- the attendance of 80%.

1. **Day 1 – May 31st, 2021 (11.00-15.30) Monday, CDK, Lecture Hall A**

- Principles of nuclear medicine 2: imaging principles – scintigraphy including SPECT, PET, hybrid systems SPECT/CT, PET/CT, PET/MRI. (45 minutes) – *Wioletta Lenda-Tracz, M.Sc., PhD.*
- Principles of nuclear medicine 3: radiation protection. (45 minutes) – *Wioletta Lenda-Tracz, M.Sc., PhD.*
- Principles of nuclear medicine 1: definition of nuclear medicine; ionizing radiation, types of radiation, radioisotopes for diagnostics and treatment, production of isotopes, radiotracers/radiopharmaceuticals. (90 minutes) - *Ibraheem Al Maraih, MD.*
- Nuclear cardiology (myocardial perfusion imaging – SPECT, PET; myocardial viability imaging).* (90 minutes) - *Ibraheem Al Maraih, MD.*

2. **Day 2 – June 1st, 2021 (11.00-15:15) Tuesday, CDK, Lecture Hall A**

- Neuroendocrine neoplasms (NEN): role of nuclear medicine in diagnostics and therapy (PRRT).* (90 minutes) – *Marta Opalińska, MD, PhD.*
- Introduction to immunoscintigraphy. Basics of nuclear imaging of inflammation. Sentinel lymph nodes imaging. (45 minutes) - *Ibraheem Al Maraih, MD.*
- Other applications of nuclear medicine in endocrinology: parathyroid imaging, pheochromocytoma and paraganglioma imaging and therapy (45 minutes) - *Ibraheem Al Maraih, MD.*
- Central nervous system imaging (dementia, degenerative movement disorders (Parkinson's disease and Parkinsonian syndromes), epilepsy). (45 minutes) - *Ibraheem Al Maraih, MD.*

3. Day 3 – June 2nd, 2021 (11.00-14.00) Wednesday, CDK, Lecture Hall A

- Thyroid cancer: from diagnosis to therapy and follow up.* (90 minutes) – *Małgorzata Kieć-Klimczak, MD, PhD.*
- PET-CT in oncology. (90 minutes) - *Małgorzata Kieć-Klimczak, MD, PhD.*

4. Day 4 – June 3rd, 2021 Thursday – Corpus Christi

5. Day 5 – June 4th , 2021 (11.00-15.15) Friday, CDK, Lecture Hall B

- Nuclear imaging of bones (bone scintigraphy, NaF PET/CT). Therapy of bone metastases. Radionuclide synovectomy.* (90 minutes) - *Marta Opalińska, MD, PhD.*
- Benign thyroid diseases and nuclear medicine (diagnostics and therapy).* (90 minutes) - *Marta Opalińska, MD, PhD.*
- Urogenital system imaging (focus on kidney scintigraphy and PET in prostate cancer). Imaging of liver haemangiomas. (45 minutes) - *Marta Opalińska, MD, PhD.*
- Test

Notice: * - seminar with a case presentation included