European Imaging Biomarker Alliance (EIBALL)

Siegfried Trattnig

Presentation of establishment of the European Imaging Biomarker Alliance (EIBALL)

(based on a brainstorming meeting of the QIBA European Task Force, January 13, 2015)

a) Composition
ESR Research Committee

ESR Research Committee: working groups and subcommittee:

- Subcommittee on Imaging Biomarkers
- Working Group on Personalised Medicine
- Working Group on Imaging Biobanks
- Working Group on Research Education and Training
- QIBA European Task Force
- ESR-EORTC Working Group
- ESR-ERS Working Group

ESR RC: Collaboration with other organisations:

EIIBIR - European Institute for Biomedical Imaging Research
ESMOFIR - European Society of Molecular and Functional Imaging in Radiology
ESMRMB - European Society of Magnetic Resonance in Medicine and Biology
QIBATM – Quantitative Imaging Biomarkers Alliance
EORTC - European Organisation for Research and Treatment of Cancer
BBMRI - Biobanking and BioMolecular resources Research Infrastructure
ERS - European Respiratory Society
Restructuring the ESR Research Committee

- Need for coordination of all activities in the field of imaging biomarkers
- Need to restructure existing resources and bodies
- Need to increase collaboration with QIBA™, EORTC and BBMRI

Activities of
ESR WG Research Education & Training
ESR WG on Imaging Biobanks
ESR/ERS WG
shall become tasks of the
ESR Research Committee Board

Activities of
ESR SC Imaging Biomarkers
ESR WG on Personalised Medicine
ESR-EORTC Working Group
will be merged into the
EIBALL
European Imaging Biomarkers Alliance

Chairperson
S. Trattnig /AT
current ESR SC on Imaging Biomarkers chair

Research Committee Chairperson
H.-U. Kauczor/DE

Members
A. van der Lugt/NL
current ESR WG on PM chair
A. Laghi /IT
member of the ESR-EORTC WG
L. Fournier /FR
member of the ESR-EORTC WG and of current ESR WG on PM
C.P. Heussel /DE
member of the ESR-EORTC WG
M. Fuchsjäger /AT
member of the ESR-EORTC WG
N. de Souza /UK
current member of the ESR Imaging Biomarkers SC, chair of the EIBIR Cancer Imaging Group and chair of the EORTC Imaging Group
T. Helbich /AT
current member of the ESR Imaging Biomarkers SC
F. Kiessling /DE
current member of the ESR Imaging Biomarkers SC

H.C. Thoeny /CH
current member of the ESR Imaging Biomarkers SC
E. van Beek /UK
current member of the ESR Imaging Biomarkers SC
E. Neri /IT
current chair of the ESR WG on Imaging Biobanks
L. Marti-Bonmati/ES
current member of the ESR WG on Imaging Biobanks
K. Karli Oguz/TR
new member of the ESR Imaging Biomarkers SC
F. Bamberg/DE
new member of the ESR Imaging Biomarkers SC

Co-opted Members
O. Clément
ESMOTIR representative
V. Vilgrain
EIBIR representative and member of the current ESR SC on Imaging Biomarkers
R. Achten
ESMRMB representative
QIBA™ representative tba
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b) Tasks
EIBALL Tasks (1)

- Prepare an inventory of all activities and projects in the field of Imaging Biomarkers where ESR is involved
- The alliance should become a tool box that provides information about current projects, centres involved in clinical trials and educational activities in Europe
- The operational work of the alliance should become the responsibility of EIBIR

EIBALL Tasks (2)

- All ESR members of the ESR-EORTC Working Group will be member of the alliance in order to create a permanent collaboration link between the two societies
- ESMOFIR and ESMRMB will be responsible for the educational and scientific activities
- The involvement of further societies such as the ESOI and/or of nuclear medicine representatives will be discussed in a second step
The EIBIR representative in the alliance will be responsible for reporting about European projects and calls. EIBIR should establish a network of European centres of excellence (core institutions) for the implementation and clinical validation of imaging biomarkers.

An Imaging Biomarker Task Force for standardization in MRI should become active.

**EIBALL Tasks (3)**

- University College London (X.Golay)
- Lund University (Stahlberg)
- Torino (S.Aime)
- Cambridge (Brindle)
- Milan (Sardanelli)
- Bordeaux (Grenier)
- Tübingen (Pichler, Nikolaou)
- Paris (Lucidarme)
- Napoli (Soricelli)
- Valencia (Marti-Bonmati)
- Edinburgh (van Beek)
- München (Graser, Schwäger)
- Karolinska University Stockholm (Aspelin)
- Leiden (van Leeuwen)
- Aachen (Schmitz-Rohde, Kiessling)
- Erlangen (Kalender)
- Amsterdam (Barkhof)
- Erasmus Medical Center, Rotterdam (Niessen)
- Heidelberg (Kauczor)
- Wien (Helbich, Trattnig)
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c) Collaboration with other organizations

Collaboration with QIBA

- Close collaboration with QIBA™ (technical validation) to avoid duplication of development and to coordinate strategies, find complementarity, and benefit from synergies
- The chair of the alliance will become member of the QIBA Steering Committee and QIBA appointed Ed Jackson as QIBA representative to the alliance
EORTC has 150,000 patients in database with 50,000 in the follow up, 2000 collaborators, 18 disease oriented groups

**Imaging Group** (radiologists, nuclear medical physicians, physicists, and imaging scientists) is part of the „Translational Research and Imaging Department“ within EORTC

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**Collaboration with EORTC (1)**

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**Collaboration with EORTC (2)**

- The ESR has signed a Memorandum of Understanding with the EORTC on September 5, 2014.
- **ESR-EORTC working group composition:**
  
<table>
<thead>
<tr>
<th>ESR members</th>
<th>EORTC members</th>
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<tbody>
<tr>
<td>Hans-Ulrich Kauczor /DE</td>
<td>David Woolf /UK</td>
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<tr>
<td>Andrea Laghi /IT</td>
<td>Joana Ribeiro /PT</td>
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<td>Laure Fournier /FR</td>
<td>Bertrand Tombal /BE</td>
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<td>Claus Peter Heussel /DE</td>
<td>Frédéric Lecouvet /BE</td>
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<td>Michael Fuchsjäger /AT</td>
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Collaboration with EORTC (3)

Aims

- Organisation of training programs for radiologists
  (state-of-the-art oncologic imaging, imaging interpretation and integration of medical imaging and imaging biomarkers into clinical trials, translational research in imaging)
- Organisation of training programs for medical oncologists and radiation oncologists
  (imaging guidelines, good clinical practice, integration of medical imaging and imaging biomarkers into clinical trials)

Collaboration with EORTC (4)

Aims

- Cooperate with regard to the validation and implementation of imaging biomarkers to be used in clinical trials as surrogates or endpoints
- With regard to the technical validation and quality assurance EORTC and ESR will jointly liaise with the Quantitative Imaging Biomarker Alliance (QIBA)
Collaboration with EORTC (5)

- Planned multicenter project with Yan Liu, representative of EORTC on DWI of liver lesion. Recruitment of potential sites based on the list of core institutions (a network of European centers of excellence) for the implementation and clinical validation of imaging biomarkers.
- This multicenter study should serve as a pilot: Imaging protocols should be distributed within the members of EIBALL and an expert consensus should be achieved which then should be integrated within the multicenter studies.

Collaboration with EORTC (6)

- A program of quality assurance/quality control should be implemented prior to imaging in multicenter trials based on a recent manuscript ("A risk management approach for imaging biomarker driven clinical trials in oncology" by Y. Liu) et al jointly drafted by EORTC Imaging Group, ESR, EANM, NCI.
Collaboration with the EORTC (7)

- Intensify collaboration with Imaging Group of EORTC via EIBALL
- Integrate more radiologists in the Imaging Group of EORTC
- Integrate more radiologists in the organ-based tumor groups of EORTC for implementation of imaging protocols, including new imaging biomarkers into the multicenter studies (clinical validation)

Thank you for your attention!

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