# Development, validation, and reporting of a prediction model

**DATE & TIME**  
Tuesday, November 15, 2022, from 14:00  
Prague Congress Centre, Prague, Czech Republic

**DESCRIPTION OF THE COURSE**  
Prediction models are developed to help health care providers in estimating the probability or risk that a specific disease or condition is present (diagnostic models) or that a specific event will occur in the future (prognostic models), to inform their decision-making. A full and clear reporting of information on all aspects of a prediction model is mandatory to assess the risk of bias and the potential usefulness of the model. The aim of this statistical course is to **provide the main guidelines to correctly develop, validate and transparently report a prediction model**. This course will be illustrated by multiple examples on biomarkers-based predictive models and molecular classifiers, which are widely developed fields of research in transplantation.

**LEARNING OBJECTIVES**  
- How to design a prediction model study  
- How to develop a prediction model  
- How to validate a prediction model  
- How to transparently report a prediction model

**TARGET AUDIENCE**  
- Physicians from all fields with an involvement in transplantation  
- Researchers and transplant scientists from all fields with an involvement in transplantation (biostatisticians, data scientists, mathematicians, epidemiologists, methodologists)  
- Transplant surgeons  
- General surgeons and clinicians with an interest in transplantation  
- Transplant pharmacists  
- Patients and representatives of patients societies* (**patients are welcome to attend the activities of the workshop**)  

**SCIENTIFIC ORGANIZERS:**  
- Oriol Bestard | University Hospital | Vall d’Hebron | Barcelona | Spain  
- Alexandre Loupy | Paris Translational Research Center for Organ Transplantation | Paris | France

**SPEAKERS:**  
- Silvia Pineda | Complutense University of Madrid | Madrid | Spain  
- Marc Raynaud | Paris Translational Research Center for Organ Transplantation | Paris | France  
- Dina Zielinski | Paris Translational Research Center for Organ Transplantation | Paris | France
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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>14:00 – 14:05</td>
<td>Welcome and introduction</td>
<td>Oriol Bestard</td>
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<td>Alexandre Loupy</td>
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<td>14:05 – 14:35</td>
<td>Leveraging Big data using machine learning techniques in solid organ transplantation</td>
<td>Silvia Pineda</td>
<td>Spain</td>
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<td>14:35 – 15:05</td>
<td>Development and validation of prognostic models</td>
<td>Marc Raynaud</td>
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<td>15:05 – 15:35</td>
<td>Development and validation of diagnostic models</td>
<td>Dina Zielinski</td>
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<td>15:35 – 16:05</td>
<td>Q&amp;A and open discussion</td>
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<td>16:05 – 16:10</td>
<td>Wrap up and conclusions</td>
<td>Oriol Bestard</td>
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