



*ERS School Course on*  
**“MONITORING OF AIRWAY DISEASES”**  
March 21-23, 2013 (Liège, Belgium)

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**Course Day 1: March 21, 2013**

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<b>09.30 – 10.00</b>	Introduction – Overview and history on different ways of assessing and monitoring inflammatory airway diseases <i>B. Balbi</i> <b>Session I – Current applications of traditional tests of disease monitoring</b>
<b>10.00 - 10.45</b>	How to value clinical presentation (symptom score, QoL questionnaires) <i>G. Joos</i>
<b>10.45 – 11.15</b>	<i>COFFEE BREAK</i>
<b>11.15 – 11.45</b>	Lung function measurements in adults and children <i>F. de Jongh</i>
<b>11.45 – 12.30</b>	Limitations of traditional tests, unanswered aspects of airway diseases <i>B. Balbi</i>
<b>12.30 – 14.00</b>	<i>LUNCH</i>
<b>14.00 – 14.30</b>	Measurement of airway hyperresponsiveness; part I: Direct challenges <i>E. Bel</i>
<b>14.30 – 15.15</b>	Measurement of airway hyperresponsiveness; part II: Indirect challenges <i>G. Joos</i>
<b>15.15 – 15.45</b>	<i>COFFEE BREAK</i>  <b>Session II – Information gained from induced sputum</b>
<b>15.45 – 16.30</b>	Methodological considerations of sputum induction <i>R. Louis</i>
<b>16.30 – 17.15</b>	Applications of induced sputum sampling in asthma and COPD <i>A. Spanevello</i>
<b>17.15 – 18.00</b>	Special considerations in sputum induction in severe patients, <i>E. Bel</i>
<b>18.00</b>	Welcome cocktail

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## Course Day 2: March 23, 2013

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### Section III. Exhaled biomarkers –methodological aspects

- 09.00 – 09.45**    Methods to measure exhaled and nasal nitric oxide  
*P. Paredi*
- 09.45 – 10.45**    Methods to measure other exhaled volatiles (CO, ethane, penthane, etc...)  
*P. Paredi*
- 10.45 – 11.15**    *COFFEE BREAK*
- 11.15 – 11.45**    *Electronic noses- breathprints*  
*P Sterk*
- 11.45 – 12.45**    Methods to collect exhaled breath condensate  
*I. Horváth*
- 12.45 – 13.15**    Methods to measure different mediators in EBC  
*M. Corradi*
- 13.15 – 14.30**    *LUNCH*
- 14.30 – 17.30**    Parallel sessions - “How to do” hands-on training in small groups:
- Airway hyperresponsiveness assessment,
  - Sputum induction,
  - Exhaled markers measurement,
  - Exhaled breath condensate collection.

**Session III: Exhaled breath biomarkers- data interpretation, clinical relevance**

- 09:00 – 09:45**    Monitoring of airway diseases in children  
*J. de Jongste*
- 09.45 – 10.30**    Applications of exhaled and nasal NO in airway diseases  
*P. Barnes*
- 10.30– 11.15**    Value of exhaled volatile organic compounds in monitoring airway disease  
*P.J. Sterk*
- 11.15 – 11.45**    *COFFEE BREAK*
- 11.45 – 12.30**    Markers of airway diseases in exhaled breath condensate and their clinical value  
*P. Barnes*
- 12.30 – 13.15**    Comparison of exhaled biomarkers to other markers of airway diseases  
*I. Horváth*
- 13.15 – 13.30**    Discussion and closing remarks; evaluation of sessions  
*B. Balbi, E. Bel, I. Horváth*