

- 5 Jorissen M, Willems T, Van der Schueren B, *et al.* Ultrastructural expression of primary ciliary dyskinesia after ciliogenesis in culture. *Acta Otorhinolaryngol Belg* 2000; 54: 343–356.
- 6 Jorissen M, Willems T, Van der Schueren B. Ciliary function analysis for the diagnosis of primary ciliary dyskinesia: advantages of ciliogenesis in culture. *Acta Otolaryngol* 2000; 120: 291–295.
- 7 Knowles MR, Leigh MW, Carson JL, *et al.* Mutations of DNAH11 in patients with primary ciliary dyskinesia with normal ciliary ultrastructure. *Thorax* 2011; 67: 433–441.

Eur Respir J 2013; 42: 1159–1161 | DOI: 10.1183/09031936.00078713 | Copyright ©ERS 2013

*From the authors:*

We wish to thank M. Boon and co-workers for their careful reading of our manuscript and to apologise to them and the readers for our mistake in the preparation of table 2 of our original article [1]. We erroneously reversed the sensitivity and specificity values, as well as the negative predictive value and positive predictive value for the first four parameters (rotation of spheroids, migration of spheroids, ability of cilia to remove debris, and normal ciliary beat pattern). The correct version of table 2 is given below. The correct version improves the true positive rate of ciliogenesis in culture for the identification of the percentage of sick people who are correctly identified as having primary ciliary dyskinesia (PCD). We want to make clear that the subject with PCD associated with rotation of the spheroids (on the 10th day of observation) similar to that described in secondary ciliary dyskinesia, did show a nonflexible and hyperkinetic ciliary motion pattern. We agree with the diagnostic approach of M. Boon and co-workers, and would be very happy to share our artificial neural network-based model with them, and anyone else, attempting to make the diagnosis of PCD.

TABLE 2 Sensitivity, specificity, positive predictive values (PPVs), and negative predictive values (NPVs) of the different parameters used for ciliary activity evaluation in suspension cell culture for the diagnosis of primary ciliary dyskinesia

Suspension cell cultures parameters	Sensitivity %	Specificity %	PPV %	NPV %
Rotation of the spheroids	97.2	79.0	67.3	98.5
Migration of the spheroids	100	17.3	34.9	100
Ability of cilia to remove debris	100	7.4	32.4	100
Normal ciliary beat pattern	100	64.2	55.4	100
Pathological ciliary beat pattern	33.3	100	100	77.1



@ERSpublications

The detection of primary ciliary dyskinesia via ciliary function analysis has sensitivity close to 100% <http://ow.ly/nf5C4>

Massimo Pifferi<sup>1</sup>, Andrew Bush<sup>2</sup>, Francesca Montemurro<sup>3</sup>, Giovanni Pioggia<sup>4</sup>, Martina Piras<sup>1</sup>, Gennaro Tartarisco<sup>4</sup>, Maria Di Cicco<sup>1</sup>, Iolanda Chinellato<sup>5</sup>, Angela M. Cangiotti<sup>6</sup> and Attilio L. Boner<sup>5</sup>

<sup>1</sup>Dept of Paediatrics, University Hospital of Pisa, Pisa, <sup>3</sup>Interdepartmental Research Centre “E. Piaggio”, Faculty of Engineering, University of Pisa, Pisa, <sup>4</sup>Institute of Clinical Physiology, National Research Council, Pisa, <sup>5</sup>Dept of Paediatrics, University of Verona, Verona, and <sup>6</sup>Institute of Normal Human Morphology, Electron Microscopy Unit, University Hospital of Ancona, Ancona, Italy. <sup>2</sup>Imperial School of Medicine, National Heart and Lung Institute, London, UK.

Correspondence: M. Pifferi, Dept of Paediatrics, University of Pisa, Via Roma 67, 56126 Pisa, Italy. E-mail: m.pifferi@med.unipi.it

Received: June 25 2013 | Accepted: June 26 2013

Conflict of interest: None declared.

## References

- 1 Pifferi M, Bush A, Montemurro F, *et al.* Rapid diagnosis of primary ciliary dyskinesia: cell culture and soft computing analysis. *Eur Respir J* 2013; 41: 960–965.

Eur Respir J 2013; 42: 1161 | DOI: 10.1183/09031936.00108613 | Copyright ©ERS 2013