# COMPARISON HIRST/CORIOLIS® FOR POLLEN COUNT MONALISA PROJECT

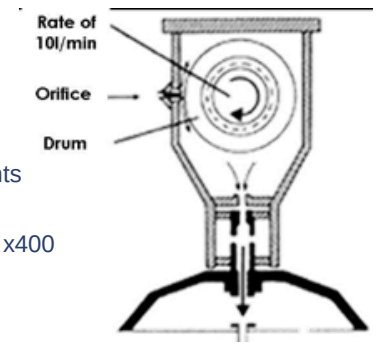
MONALISA project

## / CONTEXT

Within the field of MONALISA European LIFE project developed to validate a new method for pollen and allergen detection, the innovative Coriolis® continuous cyclonic air sampler is compared with the usual Hirst pollen trap

## / PROTOCOL

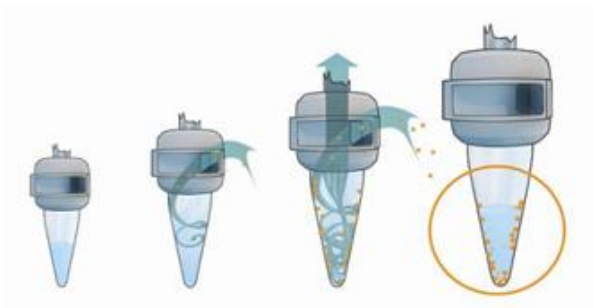
- **HIRST sampling**
- Cylinder rotation 2 mm/h
- Air flow rate 10 L/min → Adhesive band




- Band recovered and cut out in 24h segments
- Segments coloured for microscopy
- Sample totality read by optical microscope x400

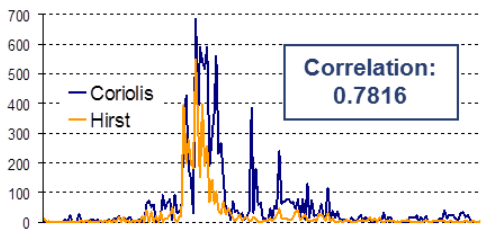
- **CORIOLIS® sampling**
- Air flow rate 200 l/min
- Sampling time 60 min → Liquid sample

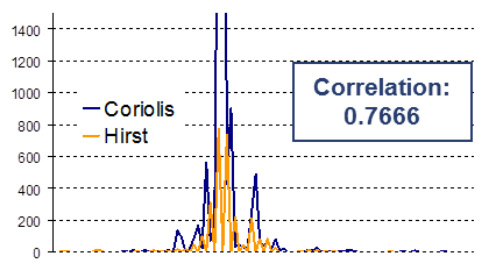
- Centrifugation and elimination of the supernatant to keep a 2 ml residue
- Homogenization of the residue and preparation of 3 slides
- 7 horizontal lines of the 3 slides read by optical microscope



## / RESULTS

Daily comparison with chi-square test for the total pollens, specific ones and fungi's spores (*Alternaria, Ambrosia*, *Artemisia*, *Betula*, *Cupressaceae*, *Parietaria / Urticaceae*, *Poaceae*,)




## / CUSTOMER

monalisa

Life

## / CONCLUSION

The efficiency of Coriolis® and Hirst are both representative and equivalent.

The use of Coriolis® liquid sample gives access to immunological analyses to assess the allergenicity/antigenicity of the collected pollens

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