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Cytology – the Old, the New and the Promising

Cytology started as a then revolutionary idea of looking at imprints of cut tumour surfaces at postmortem. Back in the twentieth century, in 1954, Papanicolaus publishes his *magnum opus*, the comprehensive *Atlas of Exfoliative Cytology*. Since then, cytology has evolved through many new methods of acquiring, fixing and staining cells, but its main attribute lies in its ability to allow prompt, accurate assessment of cell features on material taken with minimally invasive procedures.

In the third millennium, a myriad of new opportunities are definitely taking cytology into a new era. The request to get more information from smaller specimens is increasing, demanding the upgrade of new methods to analyse cytological material. Some new techniques will disappear while others will prosper or evolve into a different format. Nowadays, in the rapidly growing era of technology, diagnostic cytopathology has managed to adopt and incorporate the modern ancillary techniques such as immunocytochemistry as a diagnostic tool. The evolution of cytopathology is more than ever dependent on the intricate approach of the basic “old” principles of cytology with the continually growing new techniques.

In veterinary medicine, the maturation of cytopathology as a discipline is relatively recent, back in the late twentieth century. Its incorporation with new disciplines is an announced step. Nevertheless, future directions are difficult to predict, as the impact of changing economies will define the integration of cytopathology with other technologies. It is now that cytopathologists have to act and delineate strategies, categorically defining the role that cytopathology can play in the future.

The work expressed in this thesis is born from an interaction of an “old” personal passion on cytology, a constant inspiration acquired from my teachers and colleagues, and the search for “that something new”.

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I had a dream. I am fortunate for I was placed on a place and time where I could pursue it. This place was made of people. These people will last for time:

# Table of Contents

Frontispiece ................................................................................................................... i
Preface ............................................................................................................................. ii
Acknowledgements ......................................................................................................... iii
Table of Contents ............................................................................................................. iv

## Summary

- **Introduction** ............................................................................................................... 4
  - The mesothelium ........................................................................................................ 5
    - Mesothelial Cell Morphology .................................................................................. 5
    - Mesothelial Cell Functions .................................................................................... 6
    - Changes in mesothelial cells during effusions ....................................................... 8
    - Epithelial-to-Mesenchimal Transition .................................................................... 9
    - Mesothelial Cells Culture ...................................................................................... 10
- Effusion Cytology and Immunocytochemistry .............................................................. 12
- Hypothesis .................................................................................................................. 14

## Material and Methods

- Isolation and characterization of mesothelial cells ...................................................... 16
  - Tissue samples .......................................................................................................... 16
  - Cell Culture ............................................................................................................. 16
  - Immunofluorescent analysis ...................................................................................... 17
  - Cell lysis .................................................................................................................. 18
  - SDS-PAGE and Western Blot analysis ..................................................................... 19
- Effusion cytology ......................................................................................................... 21
  - Immunocytochemistry .............................................................................................. 21
  - Immunohistochemistry ............................................................................................. 23

## Results

- Cell Culture and Western Blot data ............................................................................. 25
- Clinical data ................................................................................................................. 27
- Cytologic Features ...................................................................................................... 29
- Immunocytochemistry ................................................................................................. 32
Immunohistochemistry.........................................................................................................................37

**Discussion** 40

- On the antibody crossreactivity on mesothelial cells.................................................................43
- On the immunocytochemistry staining method in effusion samples........................................44
- On the value of a panel of markers.................................................................................................46

**Conclusion** 53

**Bibliographic References** 55

**Appendix I** 66

**Publications during the PhD period** 67

- Papers in international scientific periodicals..................................................................................68
- Papers in international conference proceedings............................................................................73
- Papers in national meetings proceedings.......................................................................................74
- Invited oral presentations..................................................................................................................74