

## CHAPTER 5

### CONCLUSION

The present study demonstrates that the four lobes of the Sprague Dawley rat prostate gland elaborate and secrete different glycoconjugates in their secretory acini, as shown by their different lectin binding patterns. The rER-Golgi region of secretory epithelial cells of the ventral prostate was reacted with lectin Con A (specific to  $\alpha$ -D-Man,  $\alpha$ -D-Glc, GlcNAc), and DBA (specific to  $\alpha$ -D-GalNAc) in two week-old rats more than the older age groups. In contrast, PNA, which is specific to  $\beta$ -D-Gal (1-3)-D-GalNAc reacted in 14 month-old rats more than the other younger age groups.

In the dorsal prostate, secretory epithelial cells of young groups (one and three months-old rats) were reacted with lectin Con A and DBA more than in the oldest rat group (14 month-old rats). In contrast, lectin PNA reacted highest at this age.

In the lateral prostate the rER-Golgi region of secretory epithelial cells reacted with DBA and PNA in 14 month-old rats more than the other younger age groups. In the anterior prostate (coagulating gland) the rER-Golgi region were reacted with Con A and DBA in one month-old rats more than the other older age groups. PNA reacted very weakly in one month-old rats, but it increased in three and 14 month-old rats. These differences in glycoconjugates patterns can provide histochemical criteria used to distinguish the various ages. Some lectins may be used as histochemical markers for the secretory activity or pathological alterations in different prostatic lobes, and

may also be useful for biochemical analysis and the purification of prostatic glycoconjugates.



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