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## ABSTRACTS

### 102 Changes in the basal lamina structure of the uterine epithelium at implantation

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Fine structural changes in the basal lamina of the uterine epithelium were studied in the pre- and periimplantation phase in the rabbit. The basal lamina of nonpregnant animals is normally characterized by a continuous, thin lamina densa clearly separated from the epithelium by a lamina lucida. At 7 days post coitum (d p.c.), however, when implantation starts at the antimesometrial side, fine structural changes can be observed exclusively in the region of the implantation chamber. Starting at parts of the epithelium where invasion of the trophoblastic knobs is under way, the basal lamina changes to a fuzzy structure, lacking a lamina lucida. At the mesometrial side of the implantation chamber where trophoblast invasion will not commence before one day later, parts of the basal lamina are now converted into amorphous material. At 8 d p.c. the basal lamina structure has become rather indistinct and is partly lacking at the mesometrial side of the implantation chamber. Uterine epithelial cells in this latter region now form numerous cell processes on the basal side which penetrate the residual basal lamina and extend into the stroma. Blastocyst-free segments of these uteri reveal, on contrast, an intact basal lamina structure with lamina lucida and lamina densa up to 7 d p.c. At 8 d p.c., however, an enormous accumulation of amorphous material is observed here in place of a basal lamina.

In conclusion we can demonstrate remarkable changes in the fine structure of the basal lamina of the rabbit uterine epithelium at the time of implantation, starting already before trophoblast invasion begins. This suggests that the uterine epithelial basal lamina should not be regarded any further as an effective barrier for trophoblast penetration into the endometrial stroma. Supported by DFG, Wi 774/1-1 and De 181/9-6

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