fluorescent dye that stained only the cortical cells at the beginning of the culture were located in the testis cord of the left testis.
Conclusions : The results suggested the presence of Sertoli cells derived from the cortical cells expressing DMRT1 in the left testis after the onset of testicular development.

P3-52.
Functions of estrogen receptor α in different subcellular locations

（専攻生 : 人体構造学）
○内田　俊輔
（人体構造学）
李　　忠連、永堀　健太、河田　晋一
表原　拓也、宮宗　秀伸、伊藤　正裕

<Introduction>　Estrogen receptor alpha（ERα）plays crucial roles in control of proliferation, differentiation, migration, and physical functions of uterine endometrial cells.　It is observed that ERα is located not only in cell nucleus, but also in cytoplasm and membrane, and such subcellular locations varies under certain circumstances. A lot of studies indicate that PI3K-AKT is one of the major signal transduction pathways down-stream of ERα.
<Methods>　To further discern functions of ERα, it was allocated to different subcellular locations in ERα-negative Ishikawa cell, using genetic recombination and permanent transfection techniques.　Cells with ERα expressed only at cell membrane, cytoplasm, or nucleus were cloned, and these with similar amount of expression in ERα were further selected for experiments.　These cells were observed and analyzed with Annexing V staining, scratch assays, immuno-histological staining, FACS, and other related techniques.
<Discussion>　The results show that ERα of different subcellular locations, together with some of its down-stream signaling pathways, regulates cell size and migration with different intensity.　It was observed that cells with membranous ERα were significantly faster in migration than control, and such cells were significantly bigger in size than the others.　Further analysis showed that PI3K-AKT-mTOR pathway down-stream of ERα is closely involved in regulation of cell size.　The present study indicates that ERα in different subcellular locations possesses respective effects on some crucial cellular events.

P3-53.
AAV-mediated miRNA-29b delivery suppress renal fibrosis

（社会人大学院博士課程 2 年腎臓内科学）
○齋藤　　優
（腎臓内科）
菅野　義彦
（分子病理学）
大野慎一郎、原田裕一郎、老川　桂生
黒田　雅彦

Renal fibrosis, characterized as the accumulation of excess extracellular matrix（ECM）on the kidney parenchyma, is the principal process underlying the progression of chronic kidney disease（CKD）to end-stage renal disease（ESRD）, independently of the primary renal disease which causes the original kidney injury.　MicroRNAs（miRNAs）are endogenous short non-cording RNAs that regulate post-transcriptional gene expression.　Recent studies have shown that miRNA-29b protects kidney from renal fibrosis by suppressing the deposition of ECM and preventing epithelial-to-mesenchymal transition（EMT）. However, an efficient method of gene transfer into the kidney has not been established.　Here, we report a kidney-targeted gene delivery using recombinant adeno-associated virus（rAAV）vectors delivered by injection into the renal pelvis in mice.　We also discuss that which serotypes of AAV vector is suitable for kidney-targeted gene delivery and the optimized second structure of miRNA-29b to be cleaved into the mature form.