

# IGM seminar

場所: 遺制研セミナー室5階

日時: 7月6日(金)14:00より

Host: 分子腫瘍分野 藤田恭之(内線5530)

## Cellular and molecular mechanisms that regulate directed and co-ordinated cell movements during zebrafish gastrulation

During gastrulation, there are several different types of cells, all moving to different directions but in a highly co-ordinated manner. For example, prechordal plate cells migrate as a coherent sheet of cells to their destination, whereas notochord cells intercalate between one another to elongate the tissue along the forming body axis. These orchestrated movements transform ball-like embryos to fry with head-to-tail structures. We use the zebrafish as a fantastic model system for in vivo cell biology based on time-lapse imaging analyses based on genetic approaches.

One genetic pathway that co-ordinates cell movements is planar cell polarity (PCP). The PCP pathway plays a pivotal role in suppressing “random” behaviour within the same cell population in several different contexts. I will discuss how the PCP pathway can regulate different types of cell movements and how cells change the modes of their migration.

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