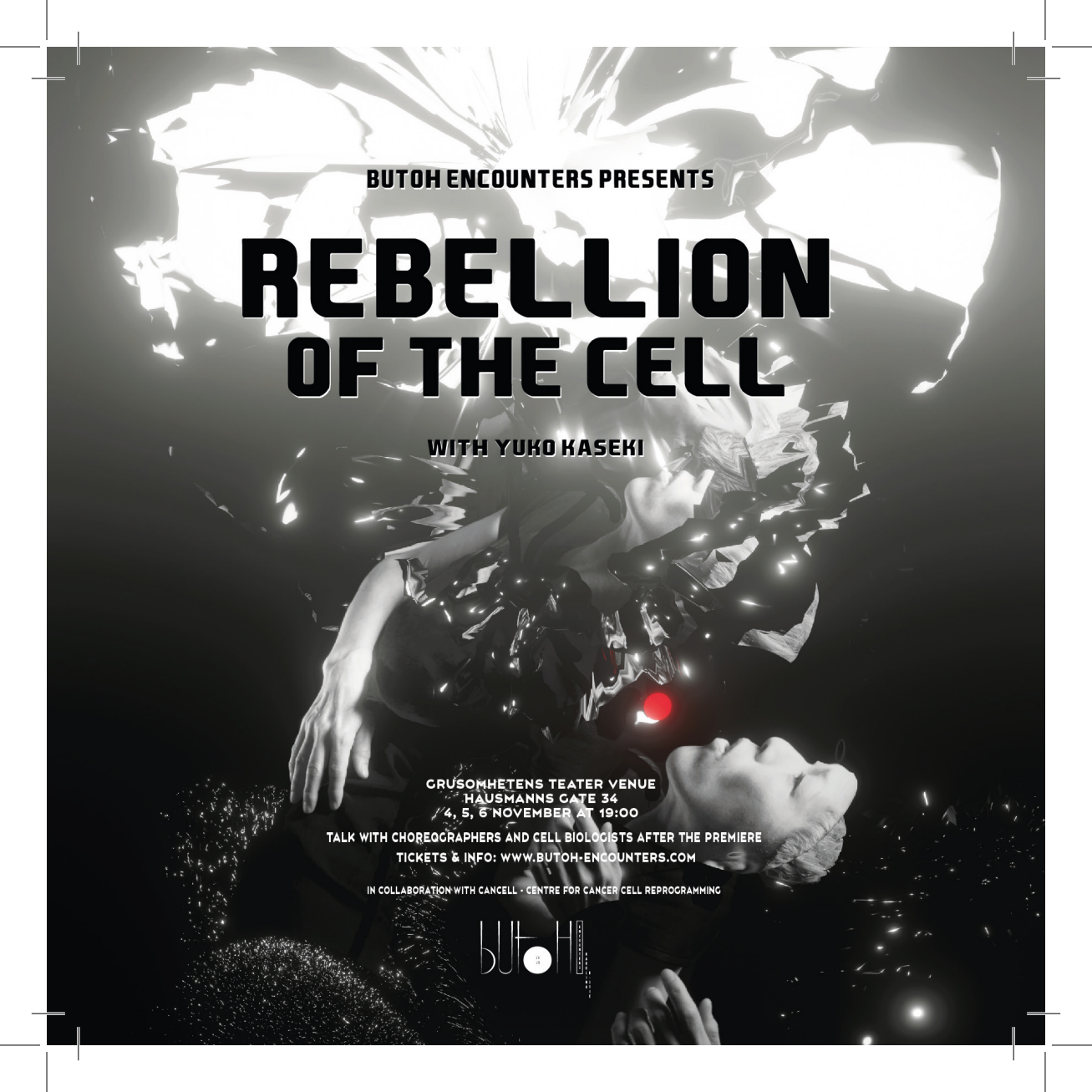




BUTOH ENCOUNTERS PRESENTS

REBELLION OF THE CELL

WITH YUKO KASEKI

**GRÜSOMHETENS TEATER VENUE
HAUSMANNS GATE 34
4, 5, 6 NOVEMBER AT 19:00**

**TALK WITH CHOREOGRAPHERS AND CELL BIOLOGISTS AFTER THE PREMIERE
TICKETS & INFO: WWW.BUTOH-ENCOUNTERS.COM**

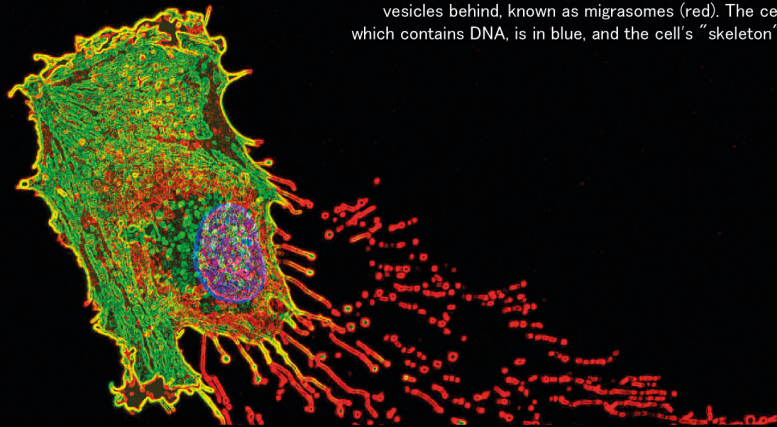
IN COLLABORATION WITH CANCEL - CENTRE FOR CANCER CELL REPROGRAMMING

BUTOH
ENCOUNTERS
2014

Invadopodia. Protrusions of cancer cells that make them able to breach through the extracellular matrix that keeps cells in place. At the tips of the invadopodia, enzymes are secreted that digest the extracellular matrix, thus making openings for the cancer cell to move.

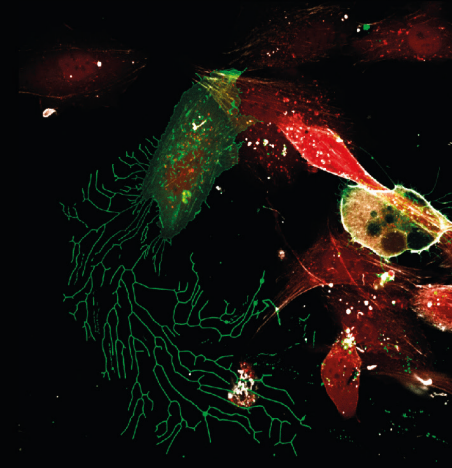
Chemotherapy. Treatment of cancer with chemical compounds.

Image by Yan Zhen



A migrating cell that leaves a track of small vesicles behind, known as migrasomes (red). The cell's nucleus, which contains DNA, is in blue, and the cell's "skeleton" is in green and yellow.

Image by Yan Zhen



A migrating cell that leaves thin filaments, known as retraction fibres (green) behind.

Breast cancer cells growing in a collagen network mimicking the connective tissue in our body. The cancer cells are clustered as in a tumour (dark red), and are surrounded by migrating cells trying to escape from the primary tumour.

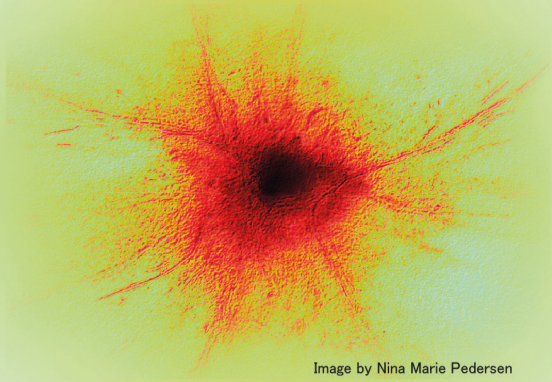
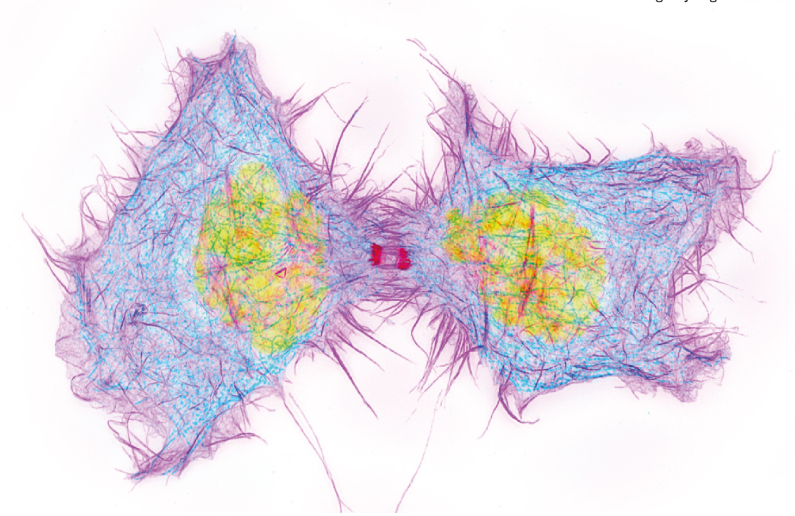


Image by Nina Marie Pedersen

Metastasis. The spread of a tumour to distant sites to form daughter tumours in other organs.
About 90% of cancer related deaths are due to metastases.

Image by Vigdis Sørensen



A cancer cell that is in the process of dividing, thus forming two daughter cells. DNA is coloured yellow, the cell's "skeleton" is in magenta and cyan, and a protein that regulates cell division is shown in red.

Radiotherapy. Treatment of cancer with radiation.

Mutation. An inherited or acquired alteration in the genetic code.
In unlucky cases, mutations in our DNA may give rise to cancer development.

Nuclei of Liposarcoma cells stained for DNA (blue) and a factor that activates cancer cell genes (green).

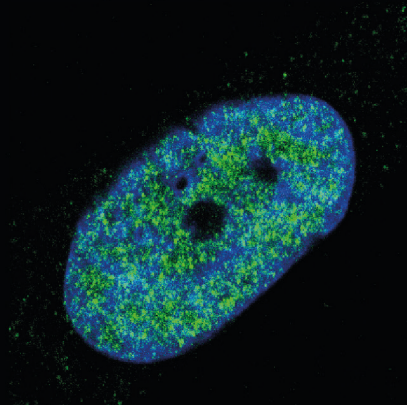


Image by Marie Rogne

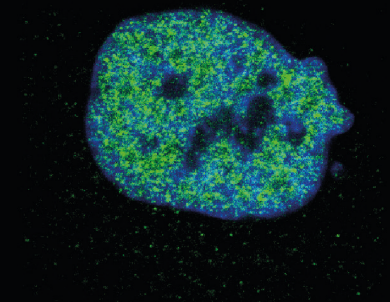


Image by Marie Rogne

The dark areas are called nucleoli and are “factories” producing important parts for macromolecular machines (ribosomes) that are responsible for protein production. Generally, cancer cells divide more often than normal cells and therefore they have a higher level of gene expression and production of proteins.

HeLa cells. Cervical cancer cells taken out from the woman Henrietta Lacks who died of cancer in 1951. HeLa cells are “immortal” and can be grown in cultures indefinitely. They are the oldest and most widely used cloned human cells and have been very important for scientific studies of cells in many fields of research including cancer research, virology and genetics. HeLa cells have also been in space, aboard Sputnik-6, where the effect of weightlessness on cell division was studied.

“REBELLION OF THE CELL”

CHOREOGRAPHY AND DIRECTION: KAROLINA BIESZCZAD-STIE

CHOREOGRAPHY AND DANCE: YUKO KASEKI

SCIENTIFIC COLLABORATION: PROFS. HARALD STENMARK & RAGNHILD ESKELAND FROM CANCELL

- CENTRE FOR CANCER CELL REPROGRAMMING AT THE UNIVERSITY OF OSLO

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LIGHTING DESIGN: STEIN STIE

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COSTUMES: ZOFIA JAKUBIEC

PRODUCTION ASSISTANT: ALEKSANDRA PIOTROWSKA

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LIGHT BOARD OPERATOR: JAN SKOMAKERSTUEN

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TARA ISHIZUKA HASSEL, ØYVIND JØRGENSEN

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UiO : CanCell – Senter for kreftcelle-reprogramming
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