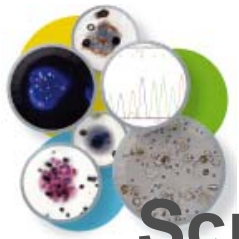
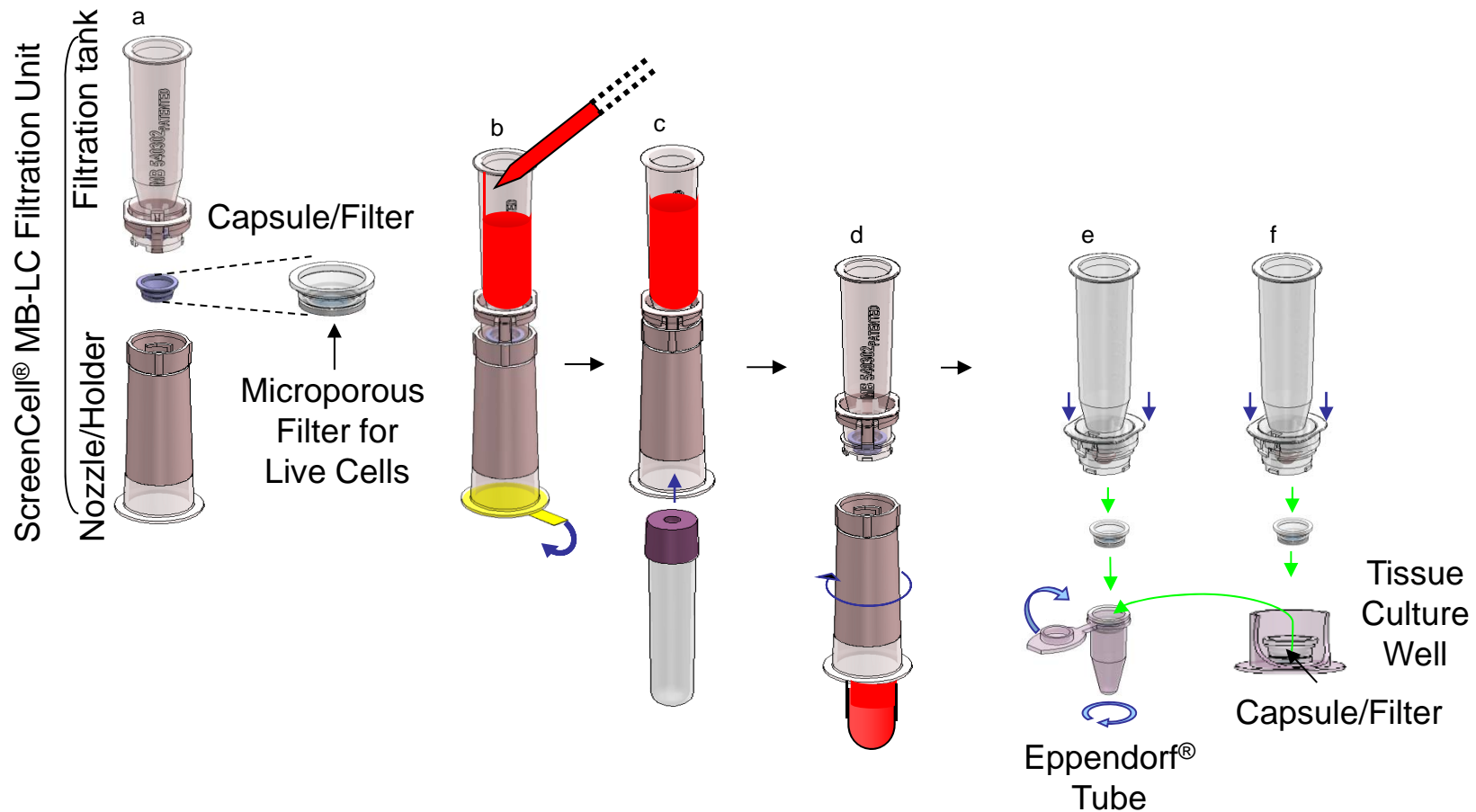


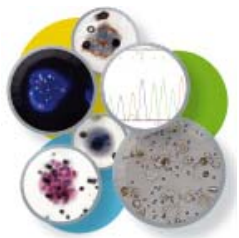
Screen]Cell

CTC(末梢血循環腫瘍細胞)を簡単にキャプチャー  
できる画期的なデバイス

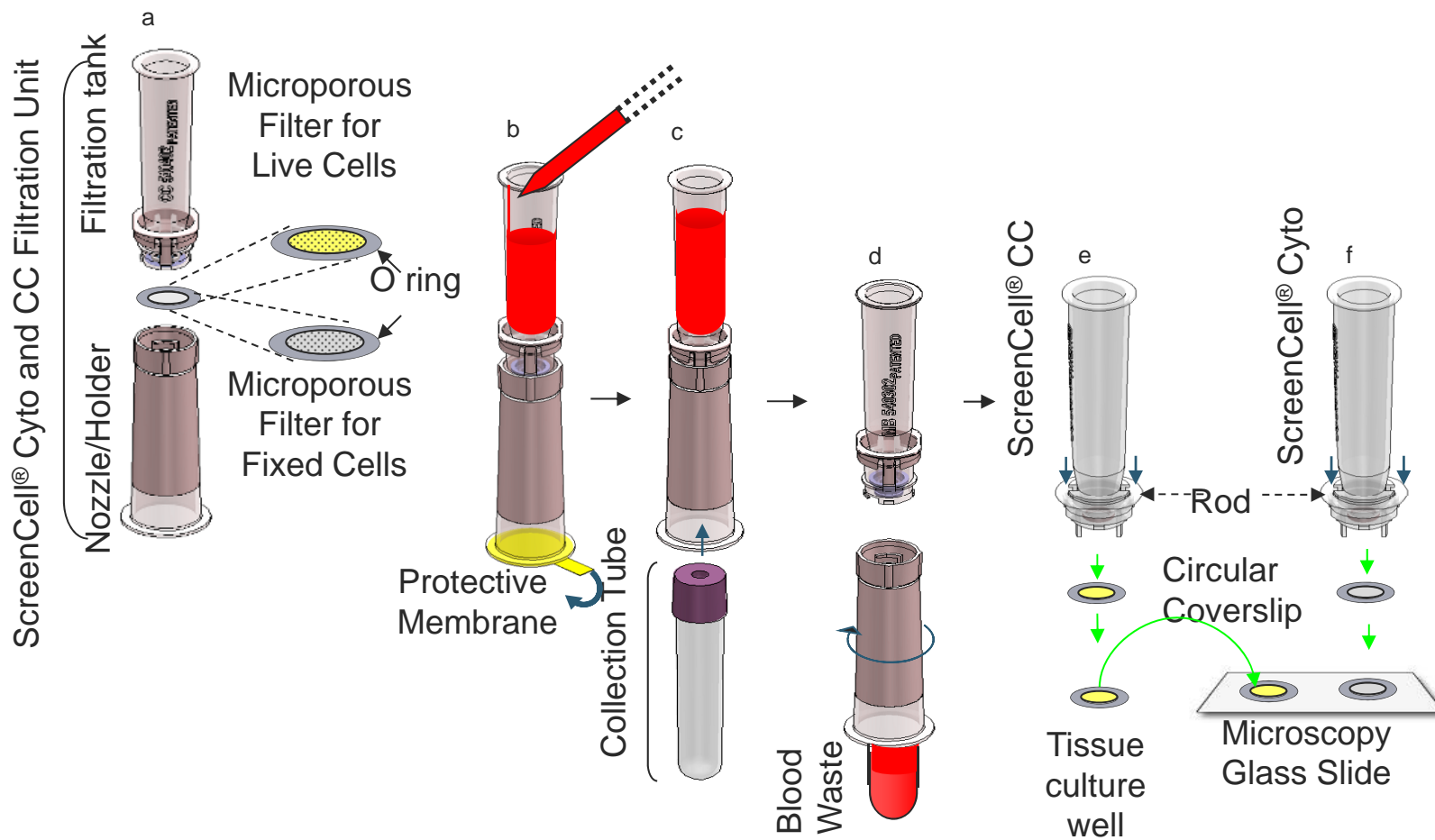


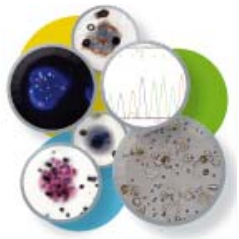
# ScreenCell® は生きた細胞をキャプチャーすることができるのでMolecular Biology analysisが可能



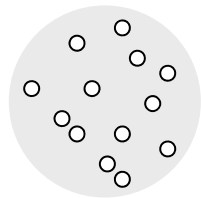


# ScreenCell® は従来の細胞診的解析も可能

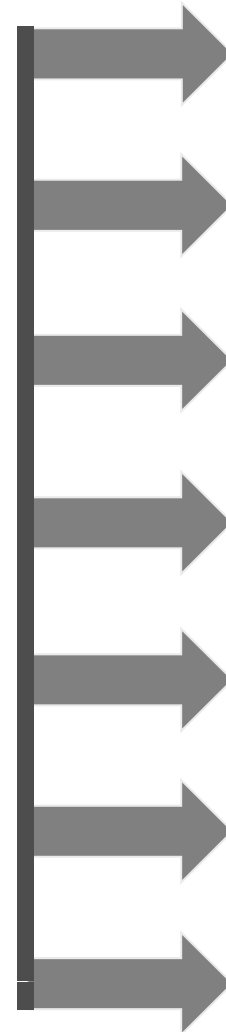




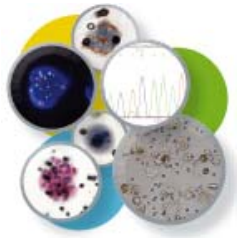
ScreenCell はキャプチャーしたCTCを様々な解析方法に供して  
キャラクタリゼーションすることが可能です...



CTCs are  
isolated on  
removable  
support



- Next Generation sequencing
- mRNA and protein multiplexes
- PCR and non-PCR assays
- FISH assays
- ICC
- Cell culture
- Platforms using: - Cartridges,  
- Plates  
- Slides



# New applications of CTCs using ScreenCell's technology

## Applications <sup>(b)</sup>

## Objective

- **DNA & RNA sequencing**  
(Sanger / next generation sequencing)
- **Non PCR assays**  
(mRNA multiplexes)
- **PCR assays**

### Genetic characterization

Identify gene alteration generating the disease

- HER2 for breast cancer <sup>(a)</sup>
- EGFR <sup>(a)</sup>
- Alk for lung cancer
- KRAS for colorectal cancer <sup>(a)</sup>

## Protein multiplexes <sup>(a)</sup>

## Phenotypic characterization <sup>(a)</sup>

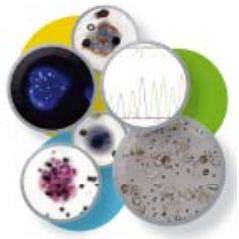
## Cell culture (xenoengraftment)

## Functional characterization

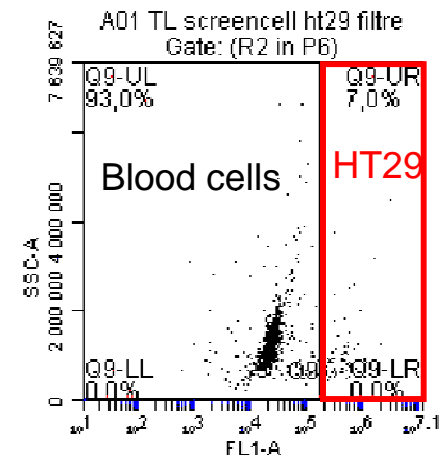
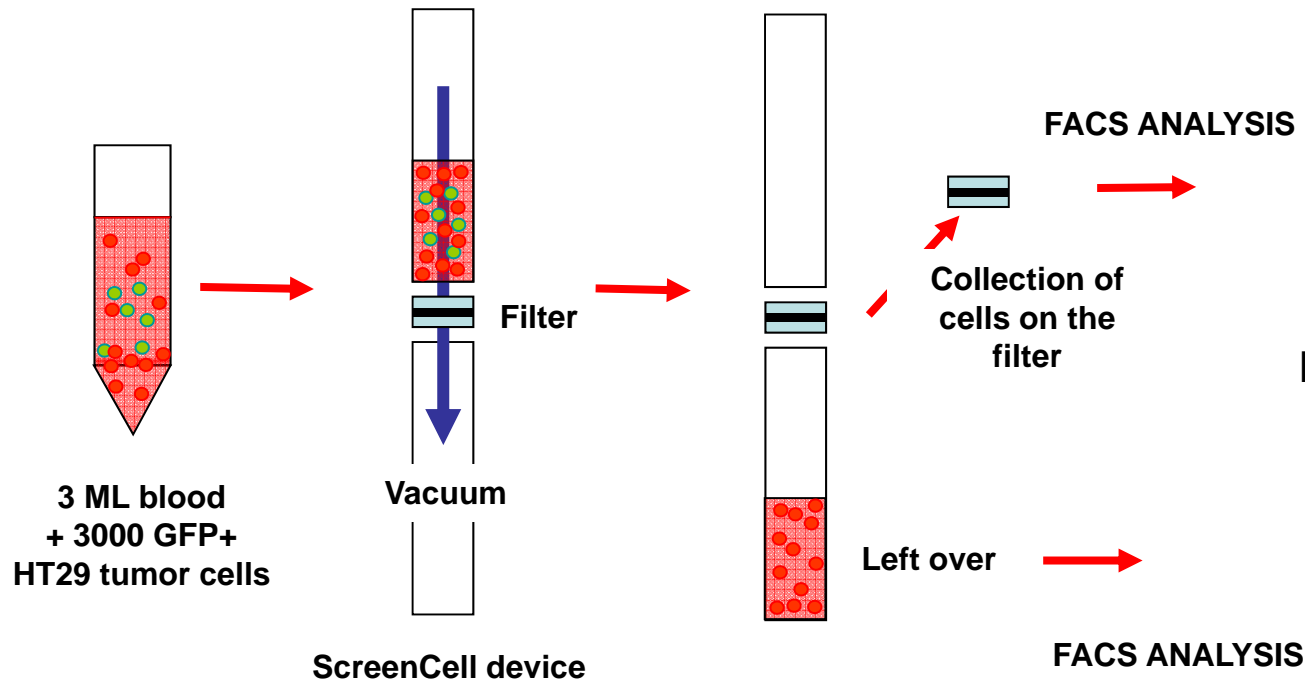
Indicate the presence of tumor stem cells among CTCs <sup>(a)</sup>

<sup>(a)</sup> Data available

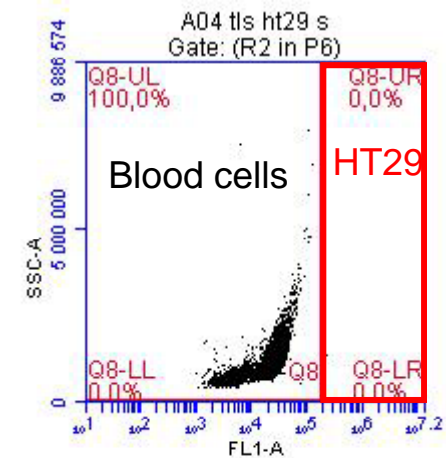
<sup>(b)</sup> On any standard platforms using Cartridges, Multi-well plates and Glass slides



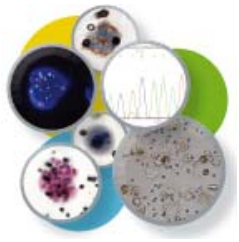
# 特殊なフィルターにより CTCを失いません！



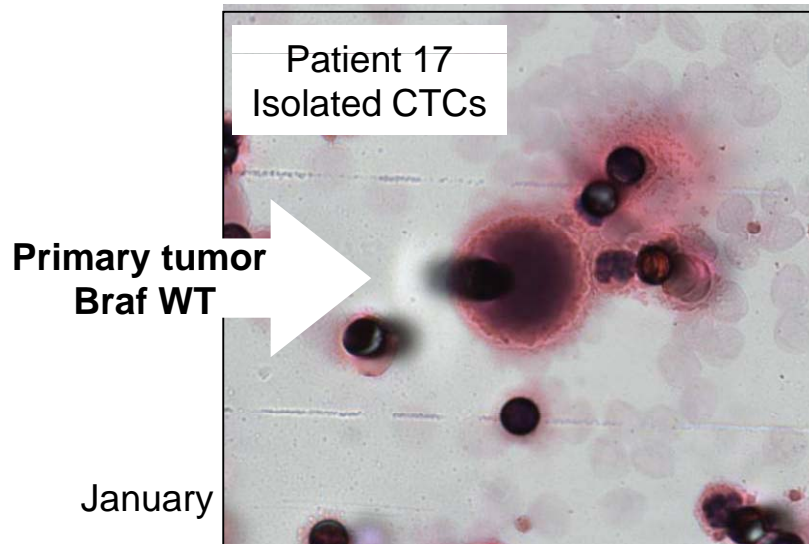
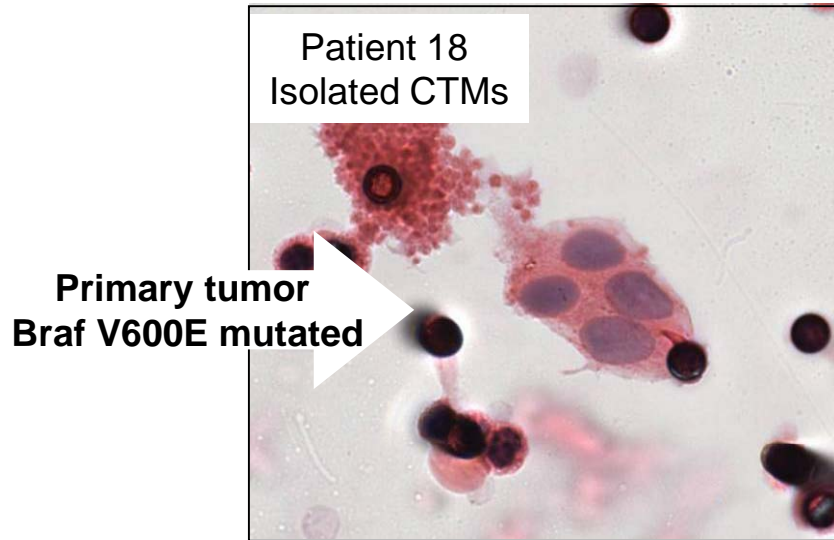
**Detection of GFP+ HT29 cells on the filter**



**No GFP+ HT29 cells detected on the left over**

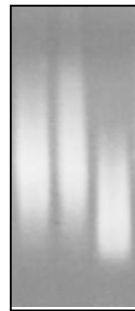


# Braf sequence analysis of CTCs isolated by size from whole blood of patients with Melanoma



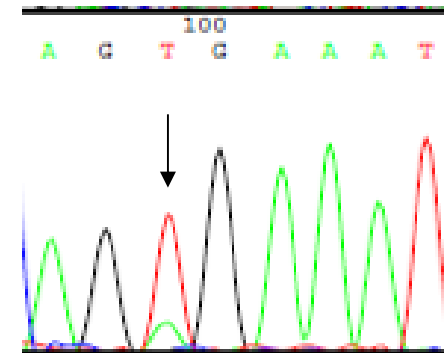
Whole Genome  
Amplification

100 pg DNA Control  
Patient 17  
Patient 18

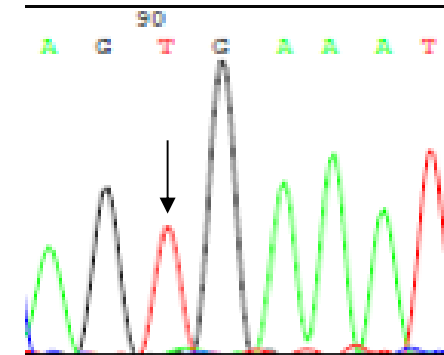


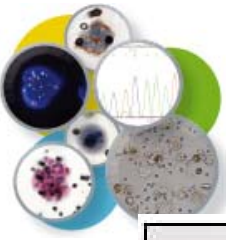
Next Generation Sequencing

CTCs of Patient 18  
Braf V600E mutated

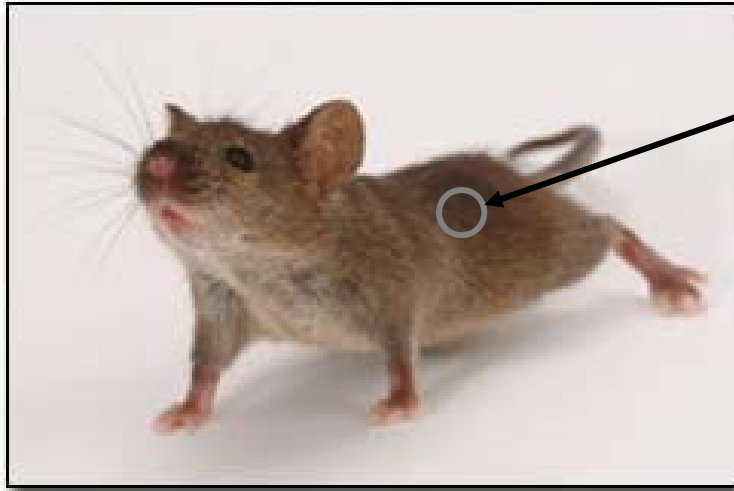


CTCs of Patient 17  
Braf Wt

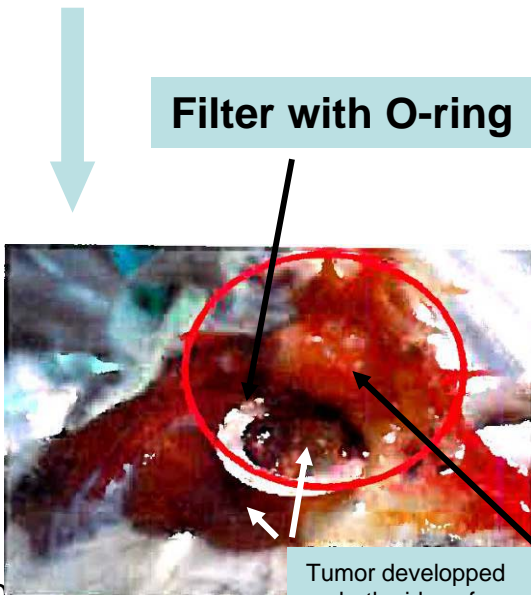




# Xenoengraftment in immunocompromized mouse



Insertion of the filter under the mouse skin

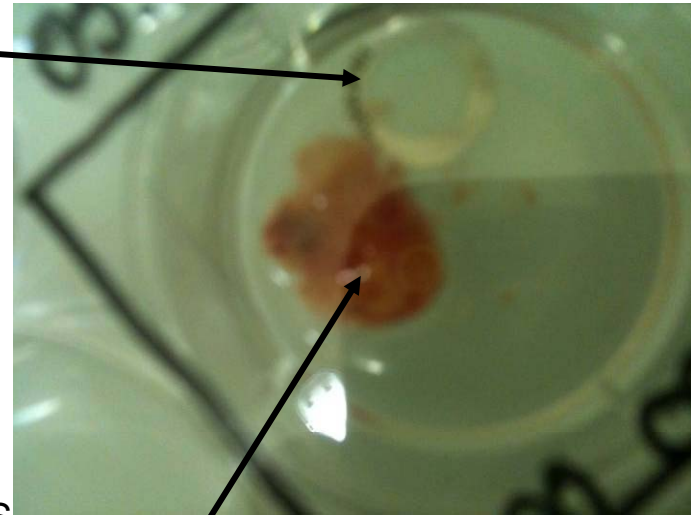


Filter with O-ring

Tumor *in situ*

Tumor developed on both sides of ScreenCell filter

Dissected tumor and filter in a Petri dish



Tumor