



**Science Comes to Life**

# ICMS Initial Ideas



- Showcase Research
- Your amazing body
- No illness or disease

# Front End Evaluation



- Disease and Medicines
- Knowledge
- Teachers
- Culture

# The Audience



- Primary Audience
  - Children Age 9 – 16 from Tower Hamlets, Newham and Hackney
- Secondary Audiences
  - Post 16
  - Families
  - London and beyond

# Top Level Message



The cells in your body work together to keep you healthy

When you are ill your cells have gone wrong; people here at QMUL and all around the world are trying to find new ways of putting cells right

# Further consultation



- Scientists
- Curriculum

# The experience

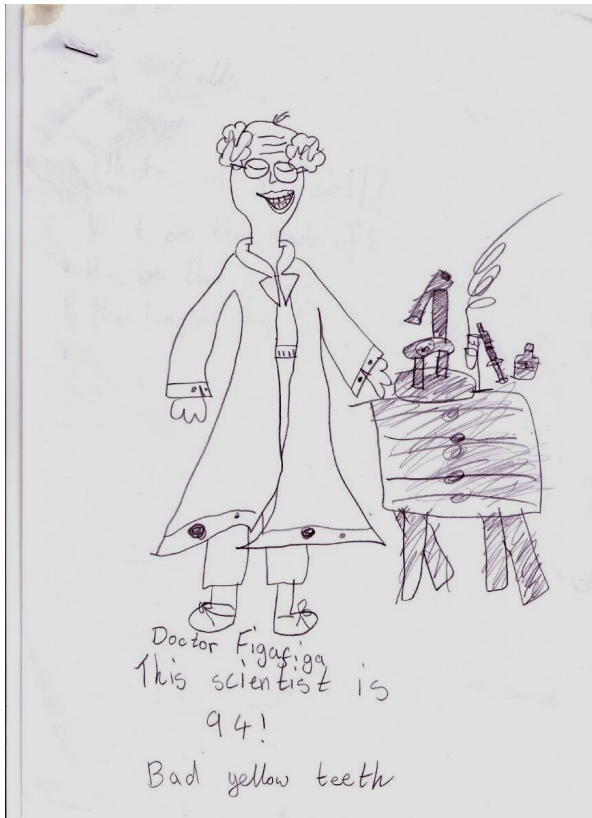


# Cartilage



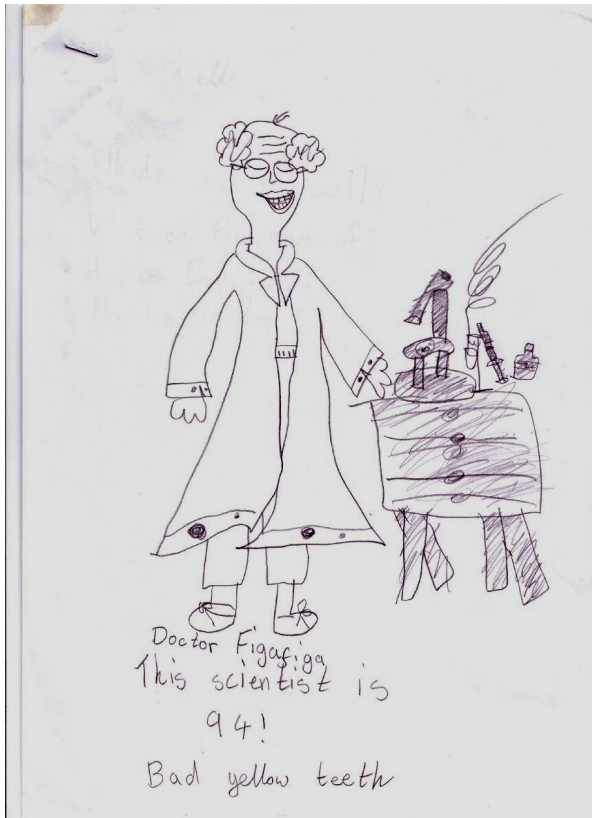
- Y10s make animation

# Learning Aims



- Your body can't replace cartilage tissue if you damage it because adult cartilage cells only make new cartilage tissue very slowly
- Scientists use tissue engineering to grow body parts to help your body heal

# Evaluation



- Classroom workshop
- Evaluation Report
  - *Students were not interested in knee injuries or cartilage. The introduction of knee injuries caused the students to switch off completely.*
  - *When the example of the knee was played down and the activity focussed solely on the concept of bio-engineering the students were much more interested and engaged.*

# Web game

You have collected some cartilage cells from Mary's hip.

However, you need many more cells than you have...



How do you get the cartilage cells to copy themselves and make more cartilage cells?

- Inject them into Mary's hip – go to page 10
- Grow a block of cells by putting them in a scaffold structure in the laboratory – go to page 14
- Grow a sheet of cartilage cells in the laboratory – go to page 12

- *Students were not fascinated by this topic but most were engaged in the task. They enjoyed making choices and the activity often prompted discussion and questions.*
- *Students were motivated to complete the task and keen to get the correct answers. They often repeated the task several times to see the different results and find the best options.*

# Web game



- Developed prototype based on all previous evaluation input
- Scientist input

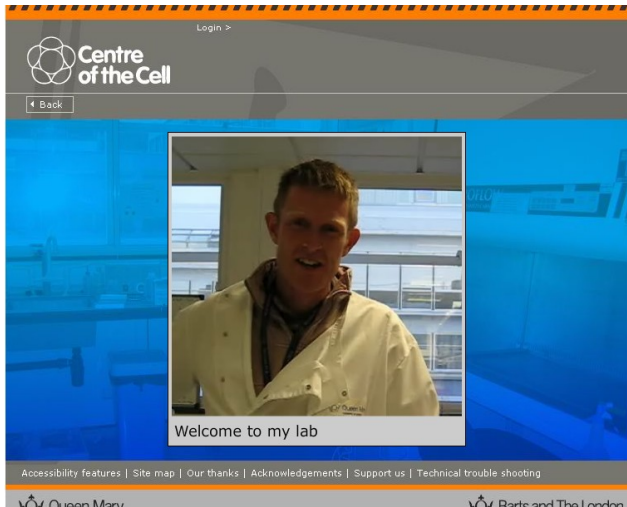
# Prototype Evaluation

- Learning Aims
- Usability



# Develop Final Game

- Evaluation input
- Scientist input



# Live on website



- Post-opening evaluation