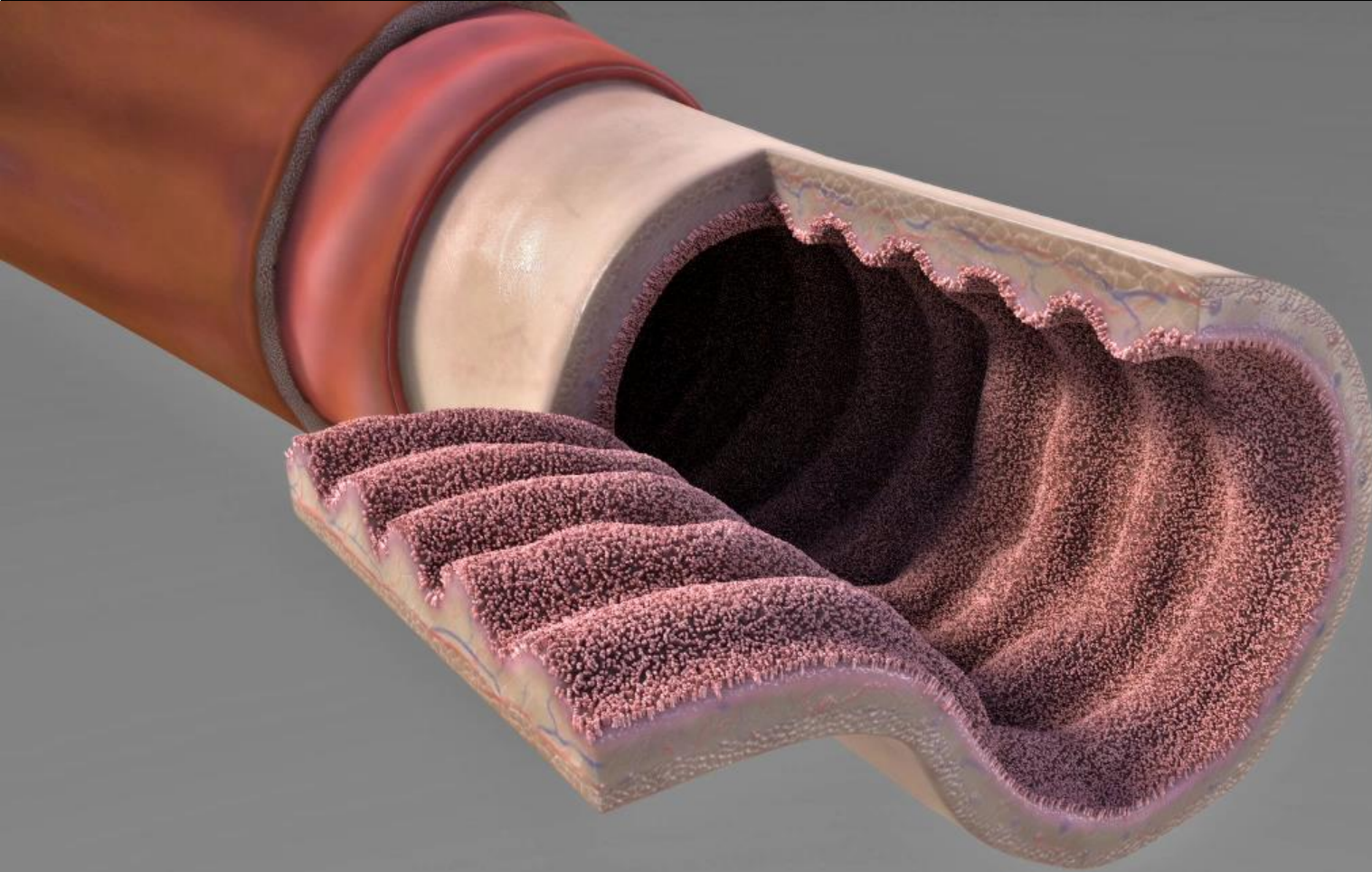


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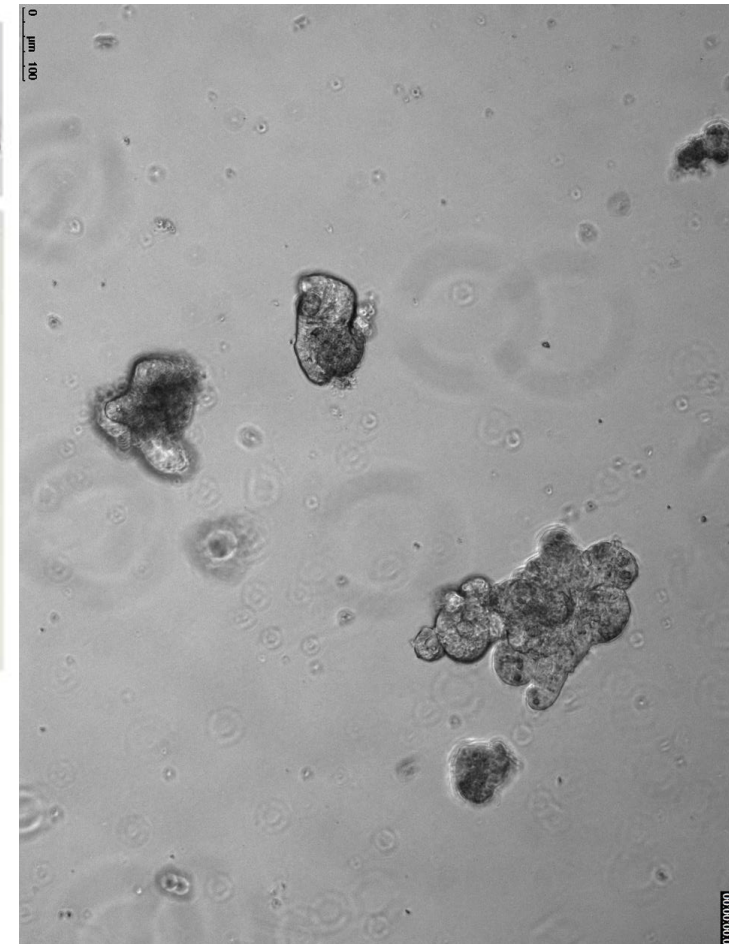
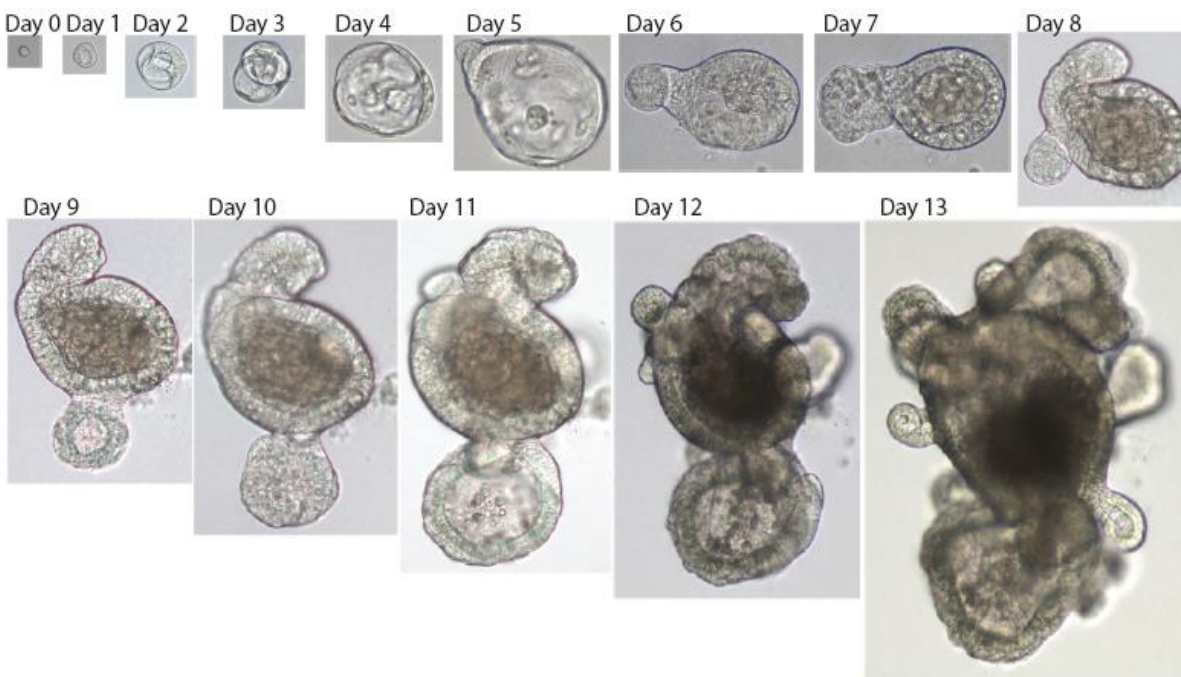


**Organoids to model, diagnose and treat human diseases**

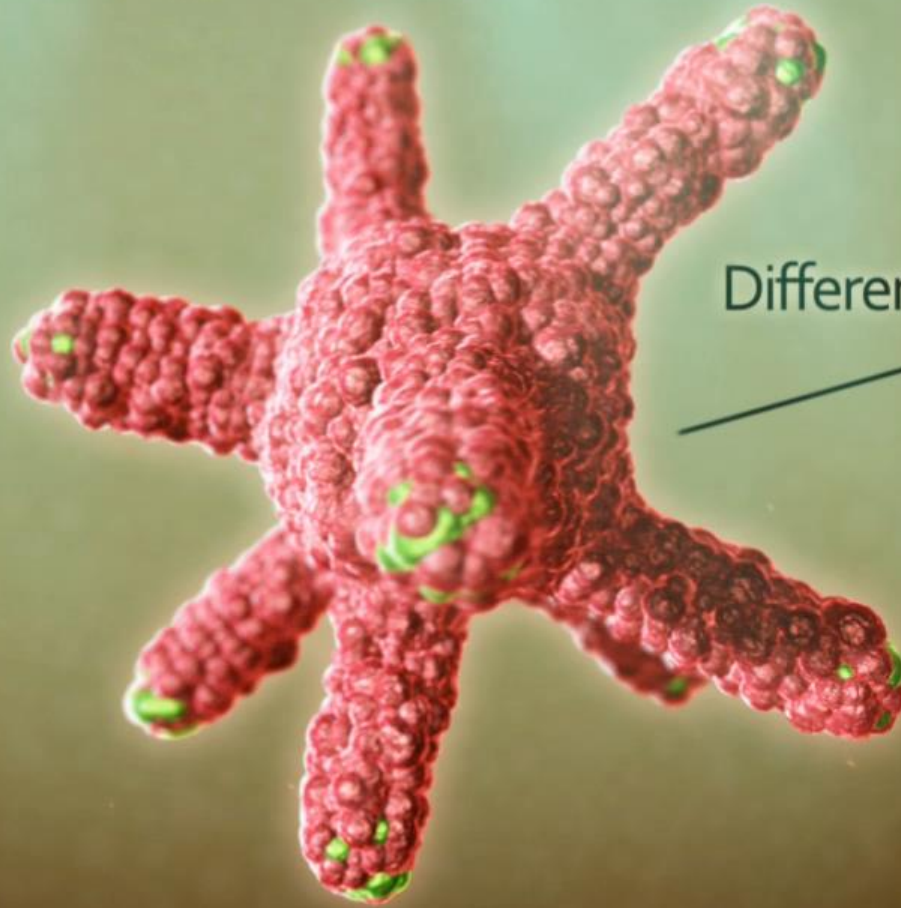
**Hans Clevers 2021**

# Single Lgr5 cells form 'mini-guts- in 3D-culture

R-spondin1, EGF, Noggin, in Matrigel  
(Toshiro Sato)

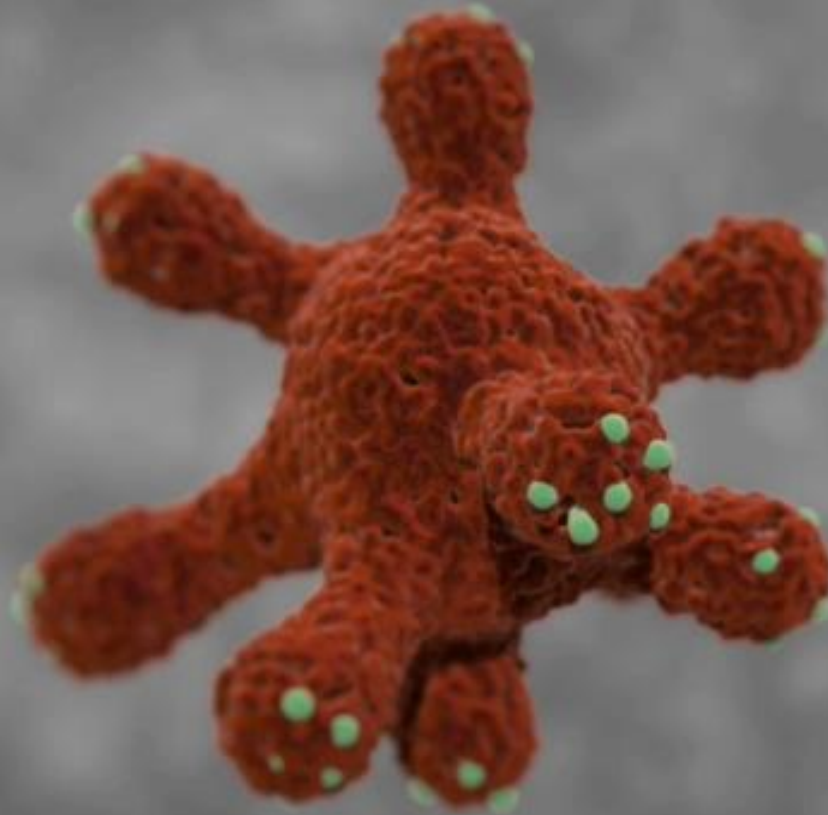


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Differentiated-domain

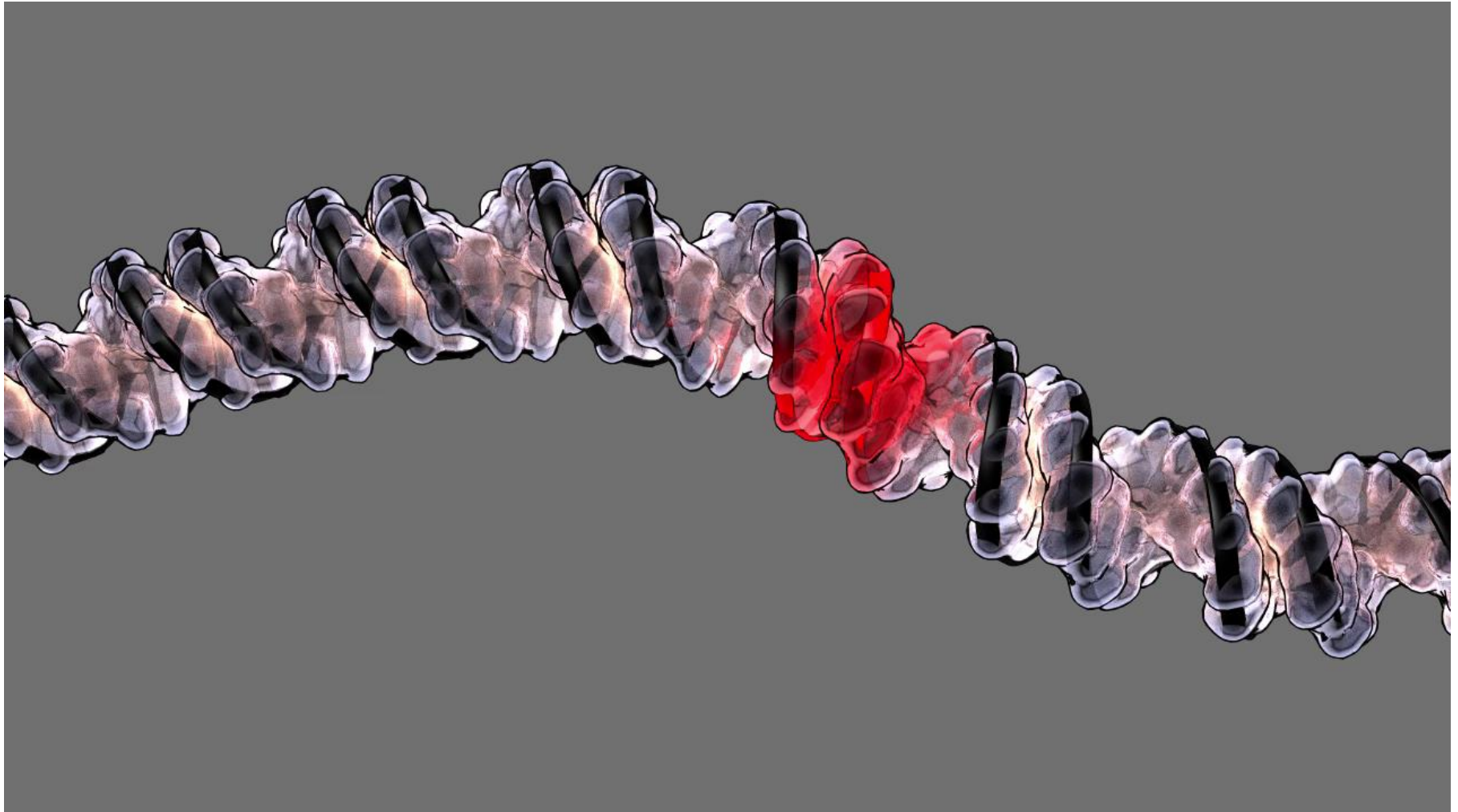
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Clevers Lab|Digizyme

- Unimpeded expansion from single human Lgr5 stem cells
- stomach, small intestine, colon, liver, pancreas, prostate, lung, ovary, mammary gland, salivary/tear gland, taste buds, inner ear...
- Organoids model cancer, hereditary- and infectious diseases.

CRISPR/CAS9 readily allows rewriting the DNA code of patient-derived organoids



[Click to watch the video](#)



‘Living cancer biobanks’

Colon -, breast -, ovarian -, bladder-, lung-, kidney-,  
stomach-, head-and-neck, pancreas, ...