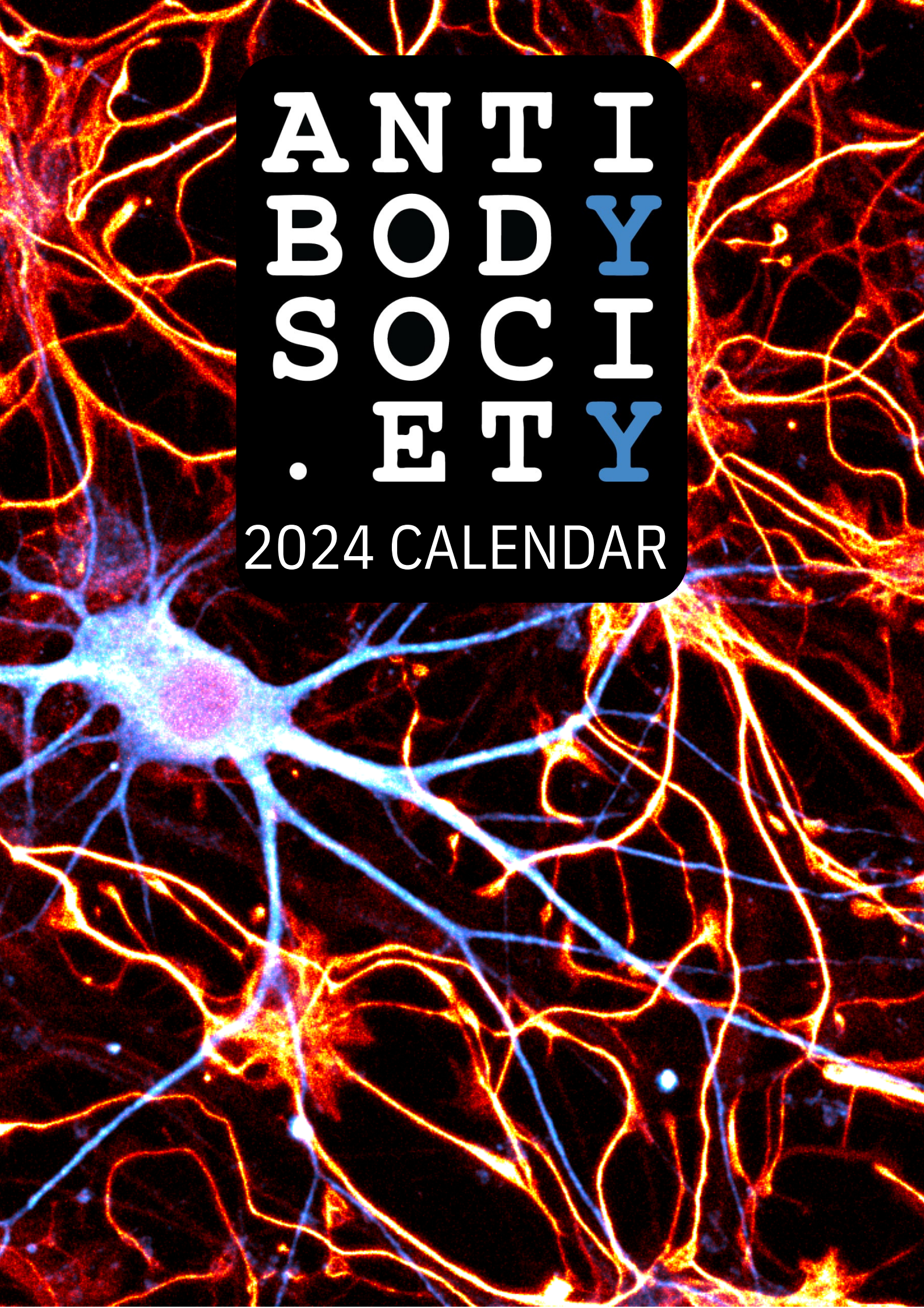
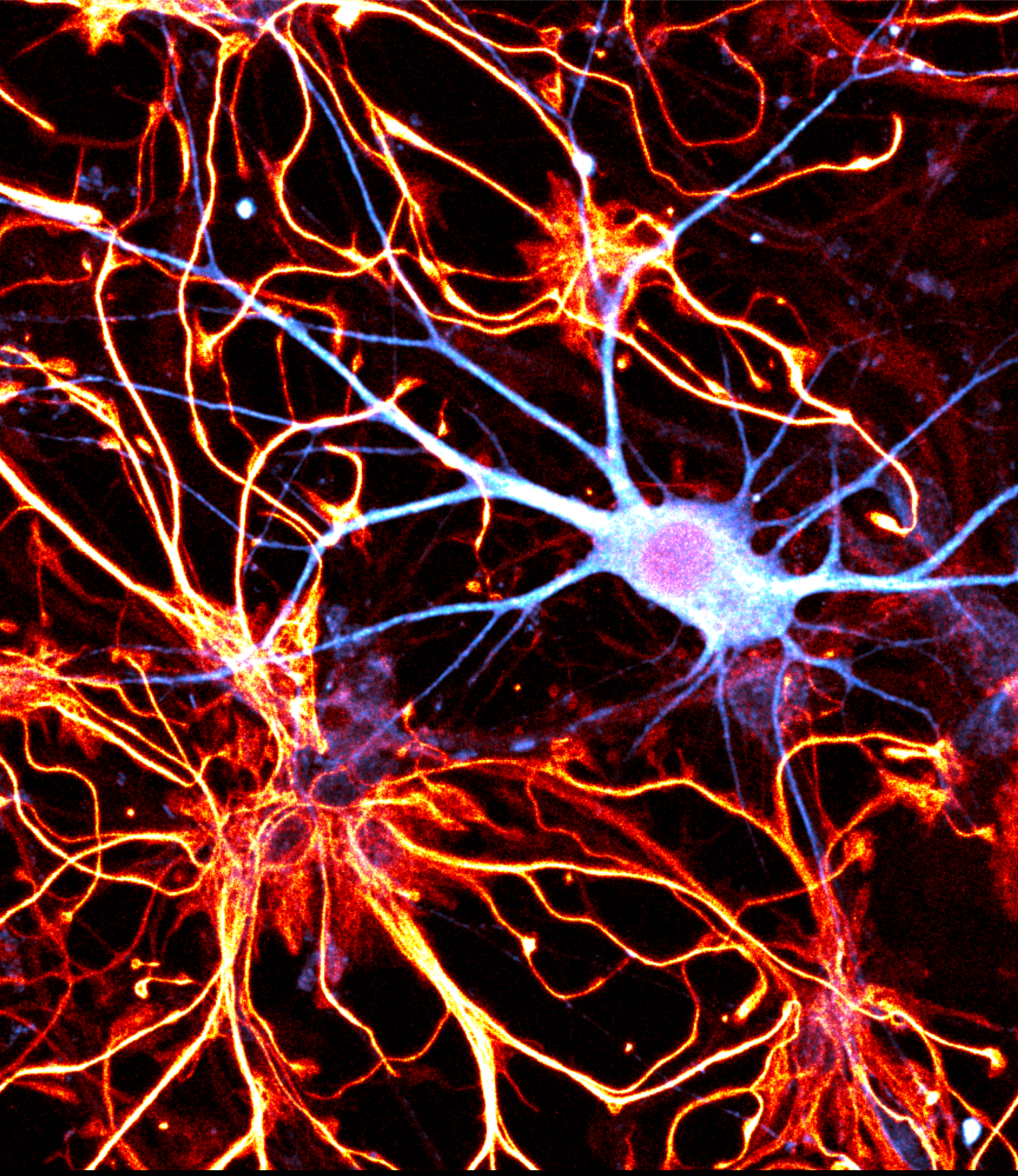

ANTIBODY SOCIETY
2024 CALENDAR



SURROUNDED: A human iPSC-derived cortical neuron (MAP2 - Cyan Hot) sits happily surrounded by astrocytes (GFAP - Red Hot)

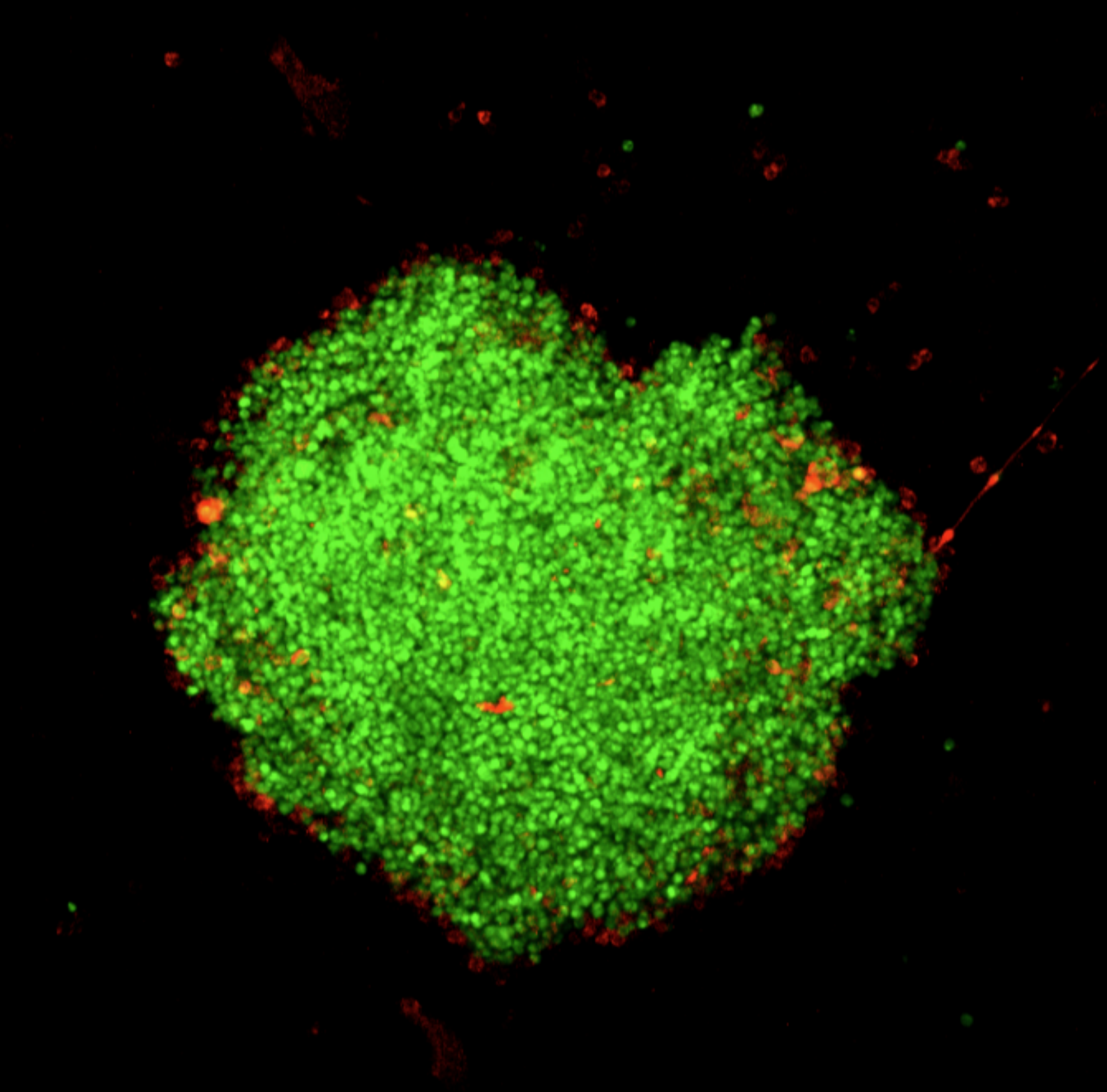
Federica Riccio (King's College London, United Kingdom)

Antibodies used: rat anti-GFAP (Invitrogen 13-0300) represented in Red Hot and rabbit anti-MAP2 (Antibodies-Online ABIN1742387) represented in Cyan Hot

Instrument used: confocal laser scanning microscope Leica TCS SP8 (Leica Microsystems)

January

M	T	W	T	F	S	S
1 1972: Nobel Prize awarded to G.Edelman and R.Porter discovery of antibody chain-like structure	**2**	**3**	**4**	**5**	**6** 2016: Genmab Hexabody platform published	**7**
8	**9**	**10**	**11**	**12**	**13**	**14**
15	**16**	**17**	**18** 1928: UCB founded by Emmanuel Janssen	**19** 2021: AbCellera granted U.S. patent covering its Trianni Mouse Technology	**20**	**21**
22	**23**	**24**	**25**	**26**	**27**	**28** 2022: FDA approves Genentech's Vabysmo, the first bispecific antibody for the eye
29	**30** 2020: Antibody Solutions' moved to Santa Clara and celebrated their silver anniversary all in one	**31** Check out the conferences run by Hanson Wade like the 7th Neoantigen Europe conference - Supercharging the clinical translation of efficaious neoantigen therapies	**Notes** **Upcoming meetings** ANTIBODY SOCIETY mAbs Happy anniversary			



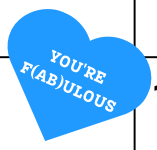
ANTIBODY DEPENDENT PHAGOCYTOSIS OF 3D TUMOR SPHEROIDS OPSONIZED WITH RITUXIMAB ANTI-CD20: Z-projected confocal images of Mono-Mac-6 cells effector cells (anti-CD89, red) induced antigen dependent phagocytosis of Rituximab anti-CD20-IgG3 opsonized Raji and GRANTA519 spheroids (CFSE, green). Different Rituximab isotypes were compared in this 3D model to highlight the importance of antibody isotypes in antitumor immunity by monocytes. doi.org/10.1002/eji.202048885

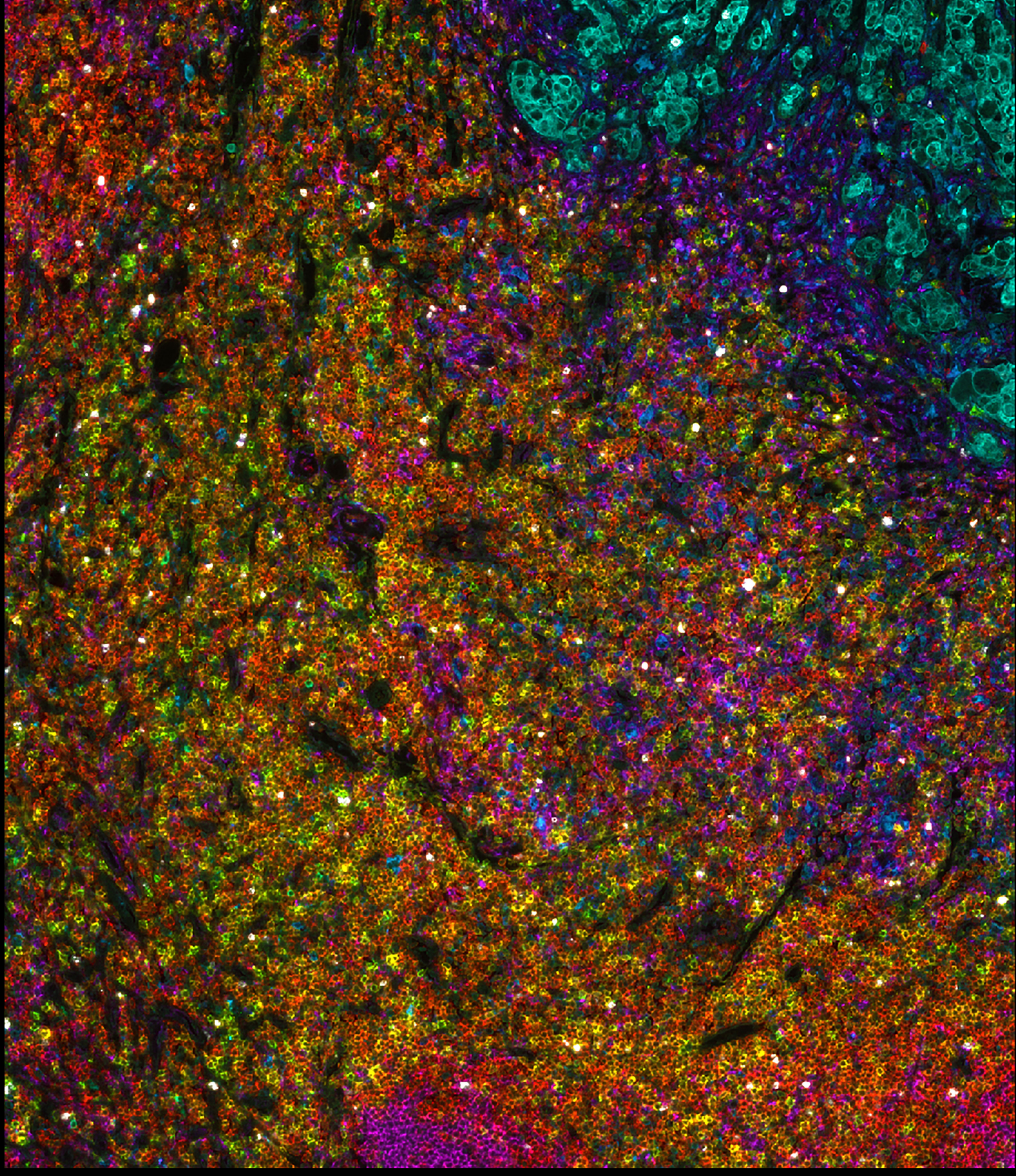
Sandra Lara (AstraZeneca)

Antibodies used: Anti-human CD20 (InvivoGen,cat# hcd20-mab3) and mouse IgG1 anti-human CD89 PE-conjugated (clone A59) (BD, cat# 555686)

Instrument used: Zeiss LSM 710 Elyra S.1, AxioObserver confocal microscope equipped with 405, 488, 561, and 633 nm lasers, and Plan-Apochromat 20 ×/0.8 M27

February

M	T	W	T	F	S	S
Upcoming meetings ANTIBODY SOCIETY		THIS MONTH: 1978: First commercialisation of mAbs as lab reagents (Sera-Lab) 2017: NanoTemper Technologies was named one of the Top 5000 Fastest Growing Companies in Europe - see how they have grown	1 Research competition opens	2	3	4
5	6 2019: FDA approves caplacizumab (Cablivi), the first Nanobody developed by Sanofi	7	8	9	10	11
12 2018: Absolute Antibody and Kerafast announced their merger	13	14 	15	16	17	18
19	20	21	22 1983: Susumu Tonegawa publishes the mechanism of antibody diversity by V(D)J recombination	23	24	25
26	27	28	29	Notes		



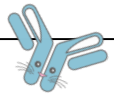
IMMUNE PROFILING OF AXILLARY LYMPH TISSUES: Immune profile and tumoral structure of an adenocarcinoma infiltrating the axillary lymph nodes

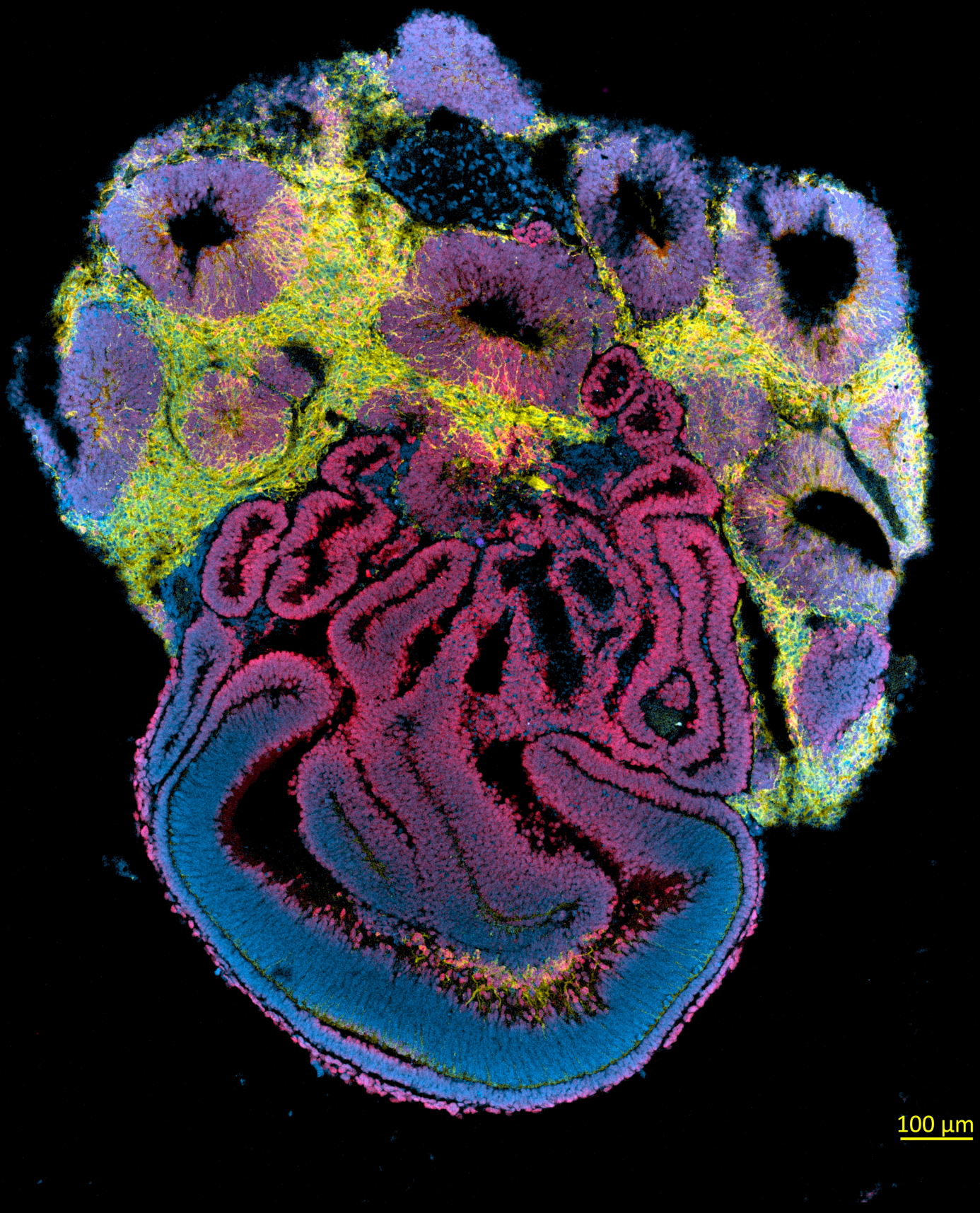
Danielle Fails (Bethyl Laboratories, Fortis Life Sciences)

Antibodies used: Bethyl Laboratories, Fortis Life Sciences - Ki67 (A700-021) clone: BLR021E, CD8a (A500-021A) clone: 144B, CD56 (A700-152) clone: BLR152J, HLA-DR (A500-022A) clone: LN3, CD68 (A500-018A) clone: KP1, CD3e (A700-016) clone: BL-298-5D12, CD20 (A500-017A) clone: L26, panCK (A500-019A) clone: AE1/AE3

Instrument used: Lunaphore Comet

March

M	T	W	T	F	S	S
Notes			THIS MONTH: 1957: Frank Burnet and David Talmage developed the clonal selection theory 2022: Biointron launched Abinvivo ANTI BODY SOCI . ETY	1 Science writing competition opens	2	3
4	5	6	7	8	9 2023: invoX Pharma completes acquisition of F-Star Therapeutics	10 2022: The US Patent and Trademark Office has granted two patents to Specifica for its innovative Generation 3 Antibody Discovery Platform
11	12	13	14	15	16	17 2017: Evolocumab shown to effectively cut cholesterol levels, thereby preventing heart attacks and strokes
18	19	20  Vernal Equinox (03:06 GMT)	21	22	23	24
26	27	28	29	30	31	**Upcoming meetings**



STRUCTURE OF AN UNPATTERNED CEREBRAL ORGANOID: 35-day old unpatterned cerebral organoid. Dorsal pallium progenitors (in red), forming ventricle-like structures, and neurons (in yellow) can be observed. DAPI is shown in blue.

Gabriel Emilio Herrera Oropeza (King's College London, United Kingdom)

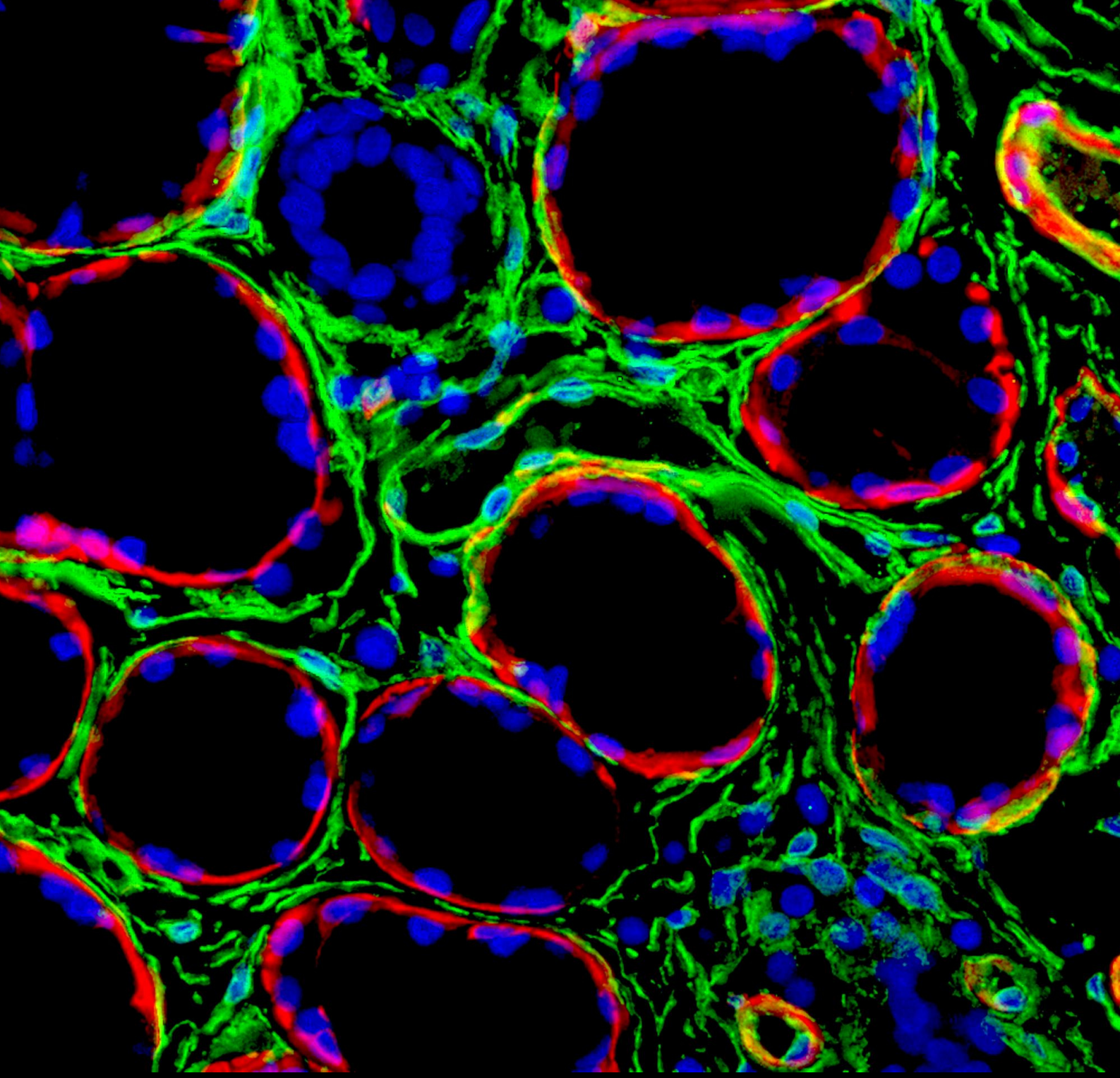
Antibodies used: Anti-Pax6 (in red) and Anti-Map2 (in yellow)

Instrument used: Confocal Microscopy

April

M	T	W	T	F	S	S
1 Imaging competition opens	**2**	**3** 2009: First publication using Merus Multiclonics platform technology	**4**	**5**	**6** 1999: Swedish Astra AB and the British Zeneca Group merged to form AstraZeneca	**7**
8	**9**	**10** 2019: Bioworkshops (Suzhou) Limited registered in China	**11**	**12** 1947: Astrid Fagraeus presents definitive evidence that plasma cells secrete antibodies	**13**	**14**
15 Research competition closes	**16**	**17**	**18**	**19**	**20** 2009: First approved bispecific antibody in Europe (Catumaxomab)	**21**
22 2021: FDA approves 100th mAb, GlaxoSmithKline's PD1 blocker dostarlimab	**23**	**24**	**25**	**26**	**27**	**28** 1994: First mouse strain published producing fully human mAbs (HuMabMouse)
29	**30**	THIS MONTH: 1982: Monoclonal antibodies generated for routine use in ABO blood typing 2018: Intellective Bio established	ANTIBODY SOCIETY Upcoming meetings			

Notes



DOUBLE IMMUNOFLUORESCENCE STAINING OF HUMAN TONGUE: The present image shows the presence and the specific localization of telocytes (CD34+ interstitial stromal cells defined by their extremely long, thin and moniliform prolongations termed telopodes) in the normal human tongue. Telocytes, which are immunonegative for α-SMA, are organized in interstitial meshworks in the lamina propria, with their telopodes finely distributed throughout the stromal space, where they envelope salivary gland units outside the α-SMA+ myoepithelial cells.

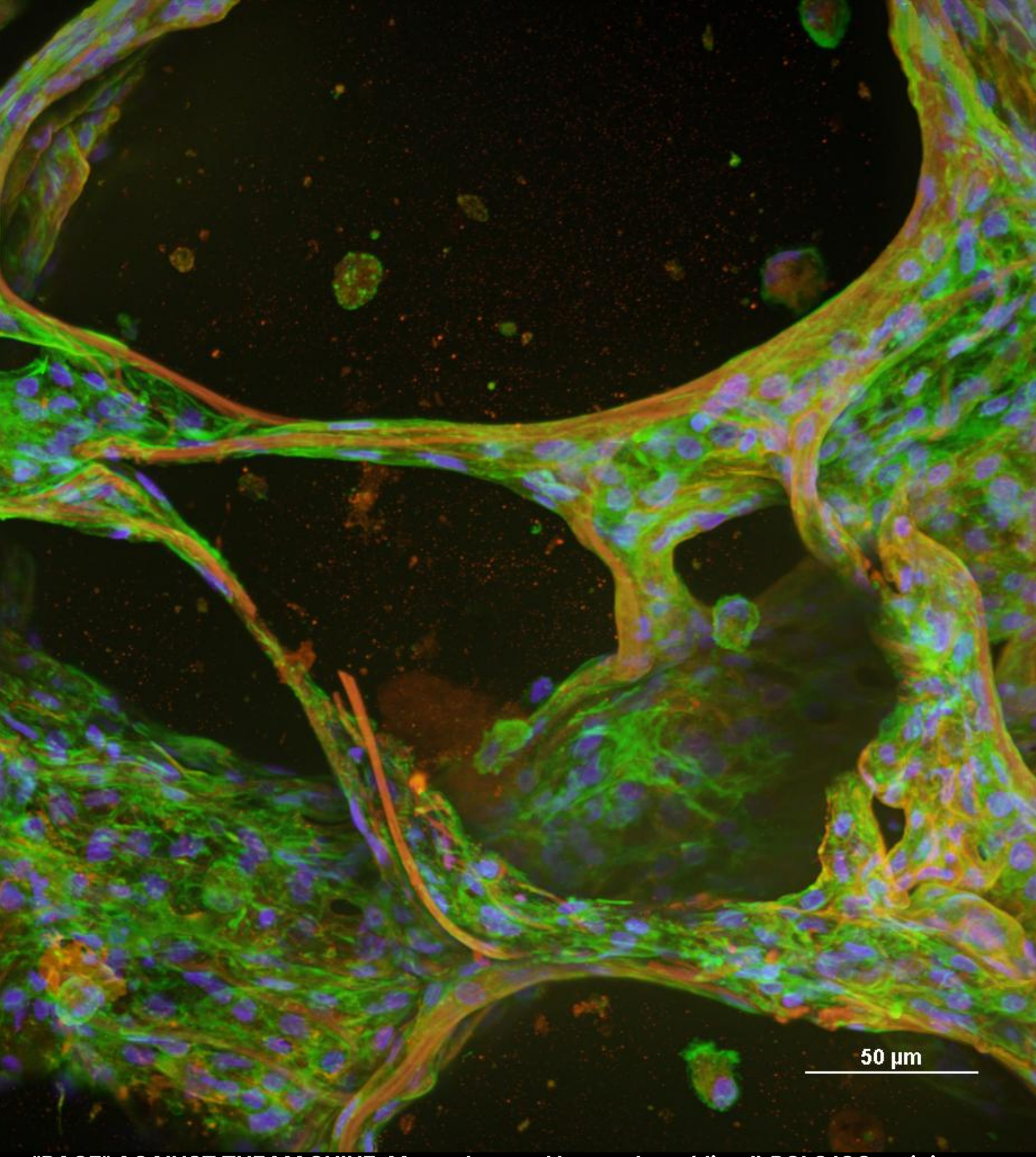
Irene Rosa (University of Florence, Italy)

Antibodies used: Mouse monoclonal anti-CD34; 1: 50 dilution (catalog no. M7165, Dako, Glostrup, Denmark) and rabbit polyclonal anti-α-SMA; 1: 100 dilution (catalog no. ab5694, Abcam, Cambridge, UK)

Instrument used: Images were acquired with a Leica DFC310 FX 1.4-megapixel digital color camera equipped with the LAS V3.8 software (Leica Microsystems). Overlay images were reconstructed using the free-share ImageJ software (NIH, Bethesda, Maryland, USA)

May

M	T	W	T	F	S	S
Upcoming meetings	THIS MONTH: 1947: Dr. Henry Foster started Charles Rivers 2017: Springer and Kruse co-founded the Institute for Protein Innovation (IPI) ANTIBODY SOCIETY	**1** 2007: Adimab founded by Tillman Gerngross, K. Dane Wittrup and Erikk Anderson	**2**	**3**	**4**	**5**
6	**7**	**8**	**9**	**10**	**11**	**12**
13	**14**	**15** Science writing competition closes	**16**	**17** 1958: G. Nossal & J. Lederberg provided strong evidence that a single cell produces an antibody of unique specificity	**18**	**19**
20	**21**	**22**	**23**	**24**	**25** 2011: J Yu and colleagues at Roche, develop method to facilitate transport of an anti-amyloidogenic antibody across the blood-brain barrier	**26**
27 2021: Genovacs work was highlighted in DDW "Berkeley Lights: Improving antibody discovery"	**28**	**29** 1986: First humanised monoclonal antibody created	**30**	**31**	Notes	



"RAGE" AGAINST THE MACHINE: Merged normal human lung (distal) PCLS ICC staining, highlighting alveolar epithelial type I (ATI) cells (red) amongst neighbouring cells (DAPI in blue, phalloidin in green, 40X magnification)

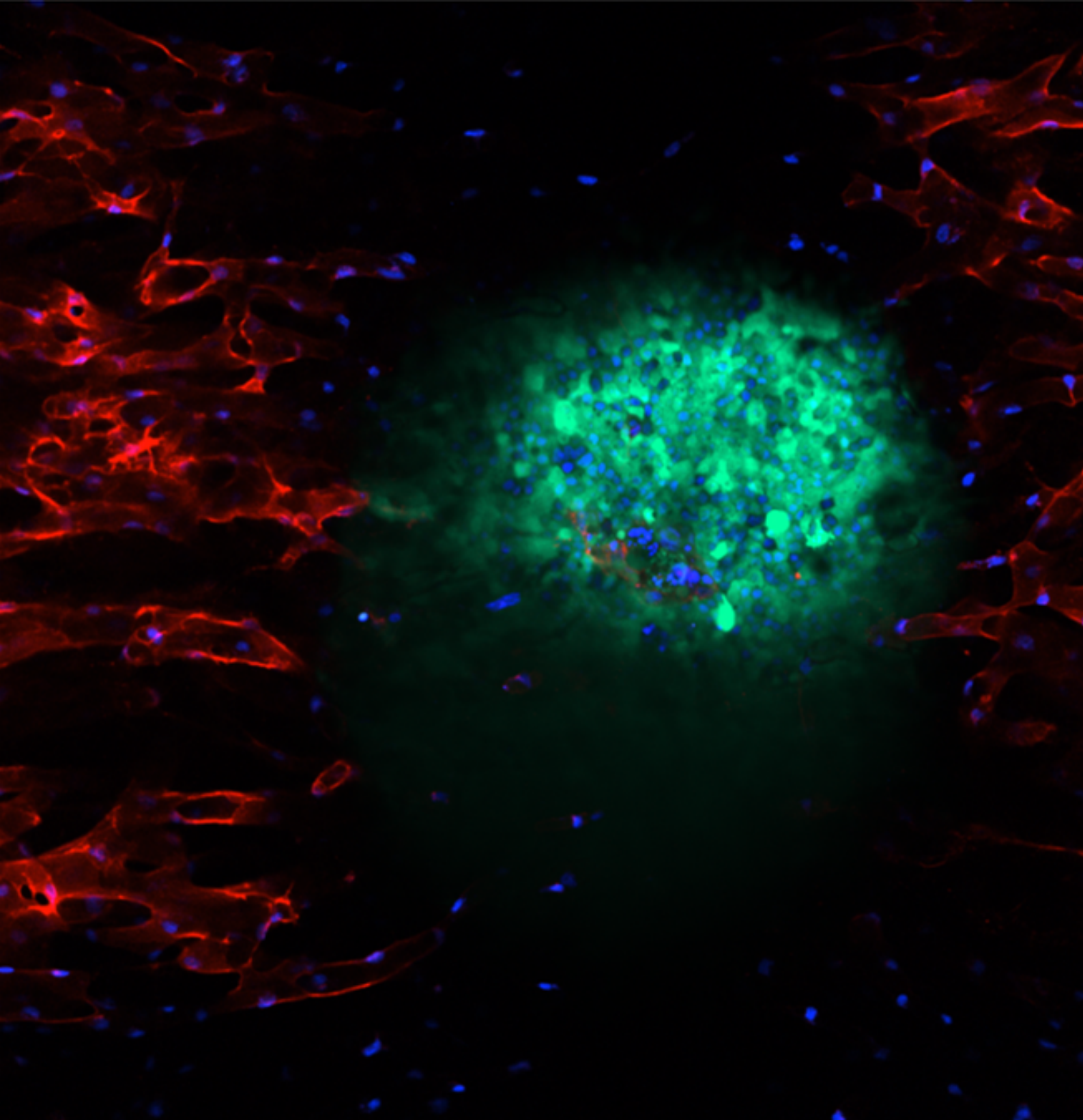
Isabel Uwagboe ***(King's College London, United Kingdom)***

Antibodies used: Anti-RAGE antibody (Santa Cruz, sc-80652) to label AT1 cells, Goat anti-Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody Alexa Fluor™ 568 (ThermoFisher, A-11004), Phalloidin Alexa Fluor 488 (ThermoFisher, A12379) to label F actin and DAPI (ThermoFisher, D1306) to label all nuclei.

Instrument used: Nikon Eclipse Ti2 spinning disc confocal microscope

June

M	T	W	T	F	S	S
Notes ANTIBODY SOCIETY **THIS MONTH:** 1977: First US patent application filed for monoclonal antibodies (Croce, Koprowski, Milstein) 2021: SeromYx systems received its certificate of accreditation - see how they've grown Come and find us at the Antibody Engineering & Therapeutics conference in London, UK **Upcoming meetings**					**1** James S. Huston Antibody Science Talent Award opens	**2**
3	**4**	**5**	**6**	**7**	**8**	**9**
10	**11** 2018: AbbVie launched auto-injection delivery system for adalimumab (HUMIRA®)	**12**	**13**	**14** 1985: Phage display technique was first introduced by George P. Smith for which he was later awarded the Nobel Prize in Chemistry 2018	**15**	**16**
17	**18**	**19** 1986: Janssens Orthoclone OKT3, was the first mAb approved by the FDA for prevention of kidney transplant rejection	**20**  Summer Solstice (21:50 GMT)	**21**	**22**	**23**
24 2022: Learn about Molecular Partners DARPin® Drug Platform in this Beyond Antibodies review published today	**25**	**26**	**27**	**28**	**29**	**30** 2015: Cambridge Innovation Institute (CII) unveiled its current image: Research. Collaboration. Advancement.



VASCULARISED TUMOUR ON A CHIP MODEL: Human umbilical vein endothelial cell (HUVEC) vessels undergoing angiogenesis towards a HT-29 colorectal cancer spheroid (tumour). This complex in vitro system may provide a more physiological background for testing promising new oncological modalities including chimeric antigen receptor (CAR) T cells

Nathaniel Lam (GSK)

Antibodies used: HT-29 cells (GFP), HUVECs (anti-CD31-APC; Invitrogen, 15577906) and nuclei (NucBlue; Thermo Fisher, R37605).

Instrument used: CellVoyager CV8000 (Yokogawa)

July

M	T	W	T	F	S	S
1	2	3	4 1819: Edward Robinson Squibb founder of Bristol Myers Squibb was born	5	6	7
8	9	10	11 2018: Visterra became part of the Otsuka group	12	13	14
15 Imaging competition closes	16	17	18	19	20	21
22 Excedr busting myths on leasing lab equipment - check them out	23	24 2009: First OmniAb publication of the OmniRat	25	26	27	28
29	30	31	Have you checked out the Pivotal Scientific Monoclonal Antibody Manufacturer Database?	ANTIBODY SOCIETY Upcoming meetings		

Notes

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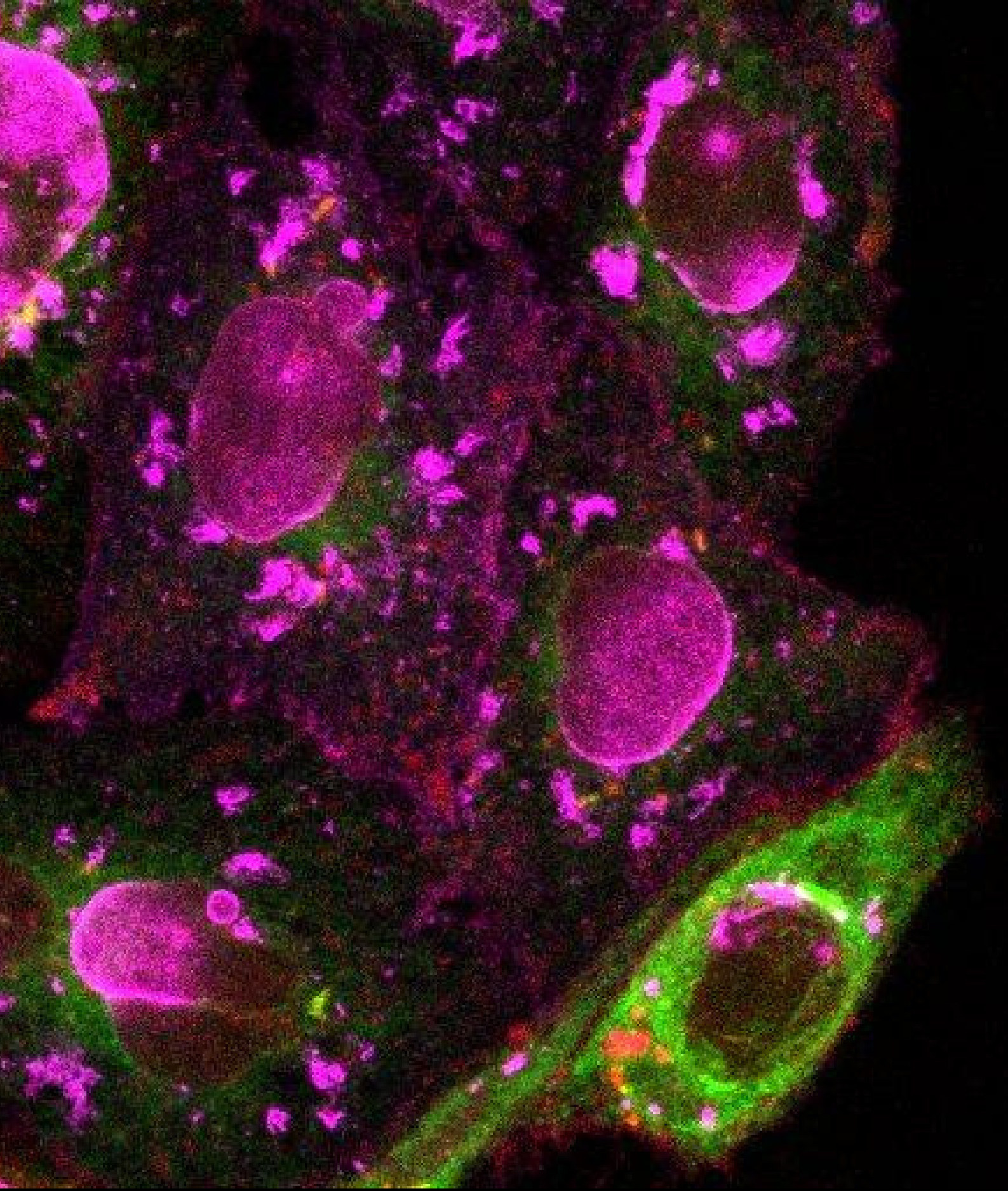


EXPRESSION BOTTLENECKS AND ANTIBODY LOCALISATION: Investigation of expression bottlenecks and antibody localisation in stably transfected CHO cells with a GFP marker

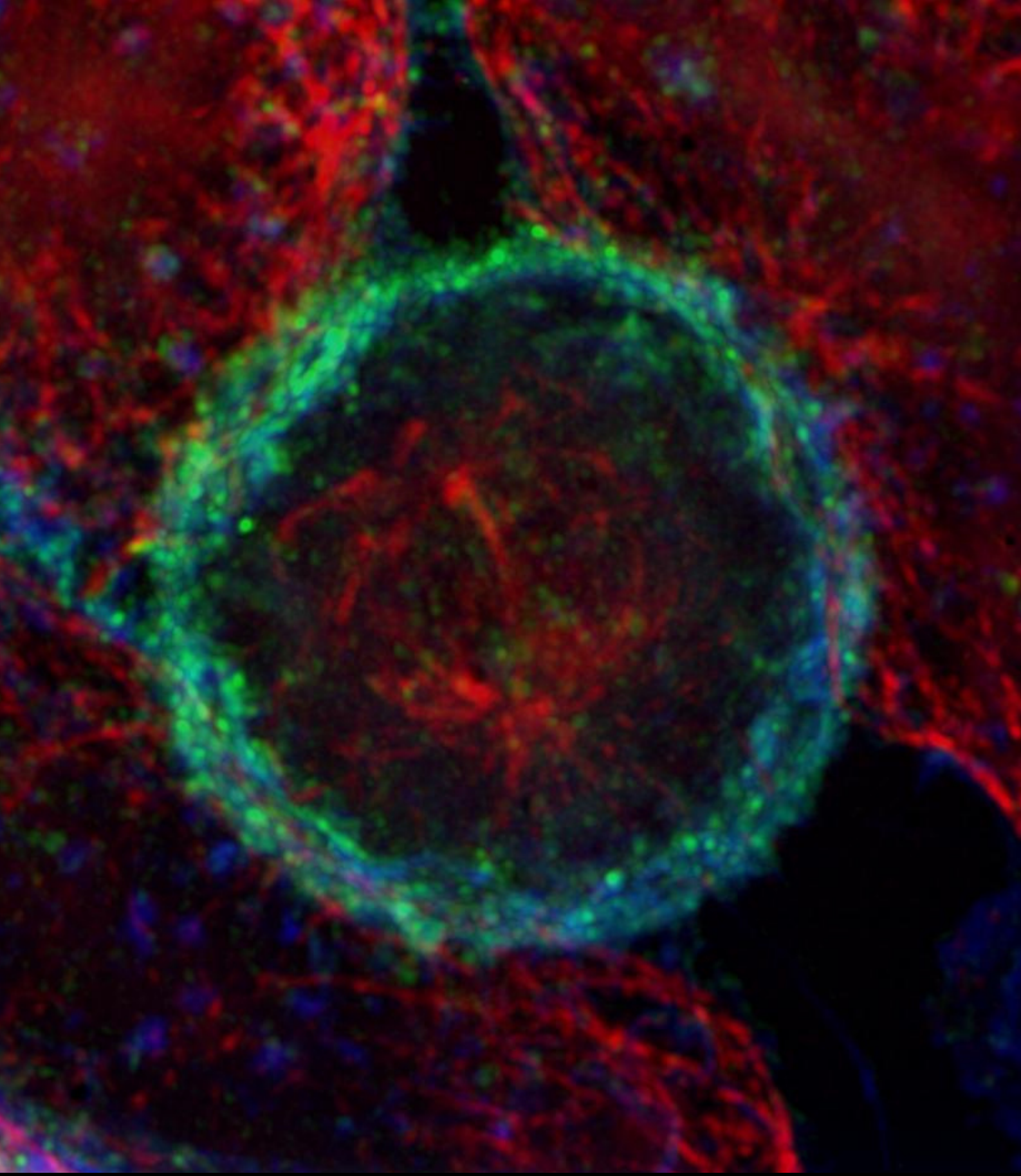
Lorna Stewart (Fusion Antibodies)

Antibodies used: Wheat germ agglutinin (red), Anti-IgG (magenta)

Instrument used: Leica SP8 confocal microscope

August

M	T	W	T	F	S	S
Notes **Upcoming meetings**			1	2	3 2022: MabSolve patented their Fc silencing technology	4
5	6	7 1975: Cesar Milstein and Georges Kohler published their technique for mAbs	8	9	10	11 2022: argenx announced European Commission Approval of efgartigimod for the treatment of generalized myasthenia gravis
12	13	14	15	16	17 2022:Take a look at the antibody optimization enabled by artificial intelligence happening at Absci	18
19	20	21	22	23	24 1998: FDA and European regulatory authorities approved the first monoclonal antibody drug for an autoimmune disease (Infliximab)	25
26	27	28	29	30	31 1909: "Magic bullet" concept started to be developed by a German Nobel laureate Paul Ehrlich in effort to cure syphilis	THIS MONTH: 2020: Fortis Life Sciences was established 2022: Have you read the BioRad founders fairy tale? Check out their employee blog ANTIBODY SOCIETY



EXCYTOSKELETAL STRUCTURES FOLLOWING FcR STIMULATION: Super-resolution image of activated myeloid (RBL-2H3s) cell expressing FcγR-EGFP pulsed with IgG antibodies

Jessica C. Anania (University of Southampton, United Kingdom)

Antibodies used: Anti-α-Tubulin (DM1A) mouse mAb (Cat# 3873, Cell Signalling Technology), Goat anti-mouse IgG secondary AlexaFluor-633 (Cat# A-21050, ThermoFisher), AlexaFluor-555 Phalloidin (Cat# A-34055, ThermoFisher)

Instrument used: Nikon N-SIM microscope equipped with 488, 561 and 640 nm lasers, Andor iXON DU897 EM-CCD camera and a 100x oil immersion lens (N.A. 1.49). Calibration was conducted as per the user manual

September

M	T	W	T	F	S	S

THIS MONTH:

2021: Learn more about Ablexis and AlivaMab Discovery Services "Unparalleled success in antibody discovery and development"

2015: MabDesign, the French biotherapy industry association, was formed

Upcoming meetings

Notes

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ANTIBODY SOCIETY

1

1972: First atomic resolution structure of an antibody fragment published

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James S. Huston Antibody Science Talent Award closes

16

17

2015: Mapps ZMapp was granted fast track status by the FDA

18

2007: First fully human cancer antibody generated using the MorphoSys' HuCAL technology started Phase 1 clinical trials

19

20

2017: Combination of three monoclonal antibodies reported to protect monkeys from HIV

21

22

Autumnal Equinox (13:43 GMT)

23

2010: Immunopaedia won the American Association for the Advancement of Science's "Science Prize for Online Resources in Education"

24

25

2020: Fusion antibodies celebrated their 200th antibody. What are they up to now?

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2021: Boehringer Ingelheim and Invetx collaboration agreement to develop novel, species-specific mAbs biotherapeutics

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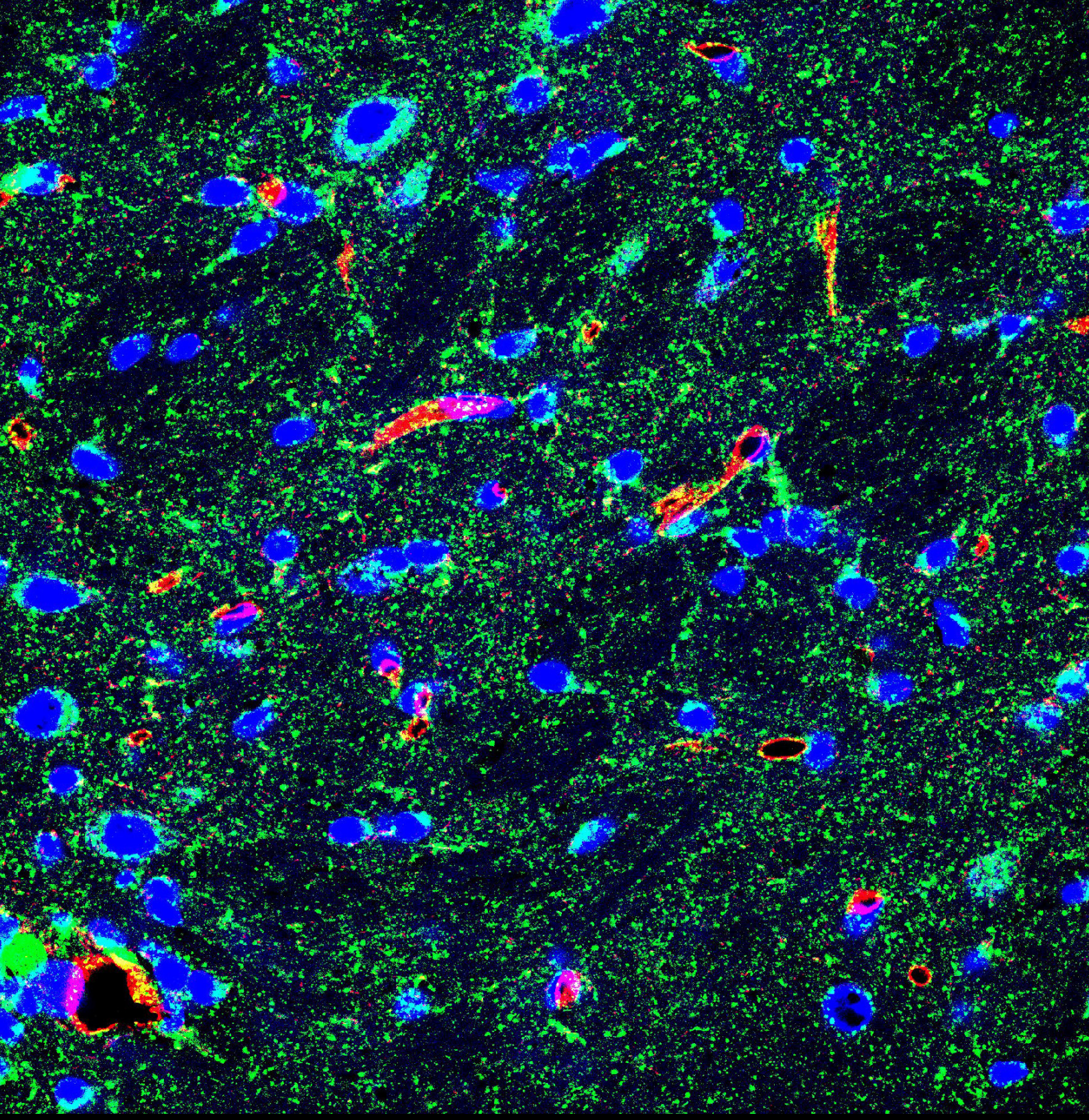


ENHANCED ANTI-ANGIOGEN EFFECT OF TRANSFERRIN RECEPTOR-MEDIATED DELIVERY OF VEGF-TRAP IN A GLIOBLASTOMA MOUSE MODEL: We generated a bispecific antibody that significantly increased antibody brain concentration by targeting TfR (VEGF-Trap/moAb4). As the ultimate validation, we collected the brain tissues of treated mice and performed immunofluorescent staining in order to identify bispecific antibodies in brain tissue. The VEGF-Trap/moAb4 showed prominent brain parenchyma distribution. CD31 was co-stained to confirm that the antibody was not trapped inside the blood vessel

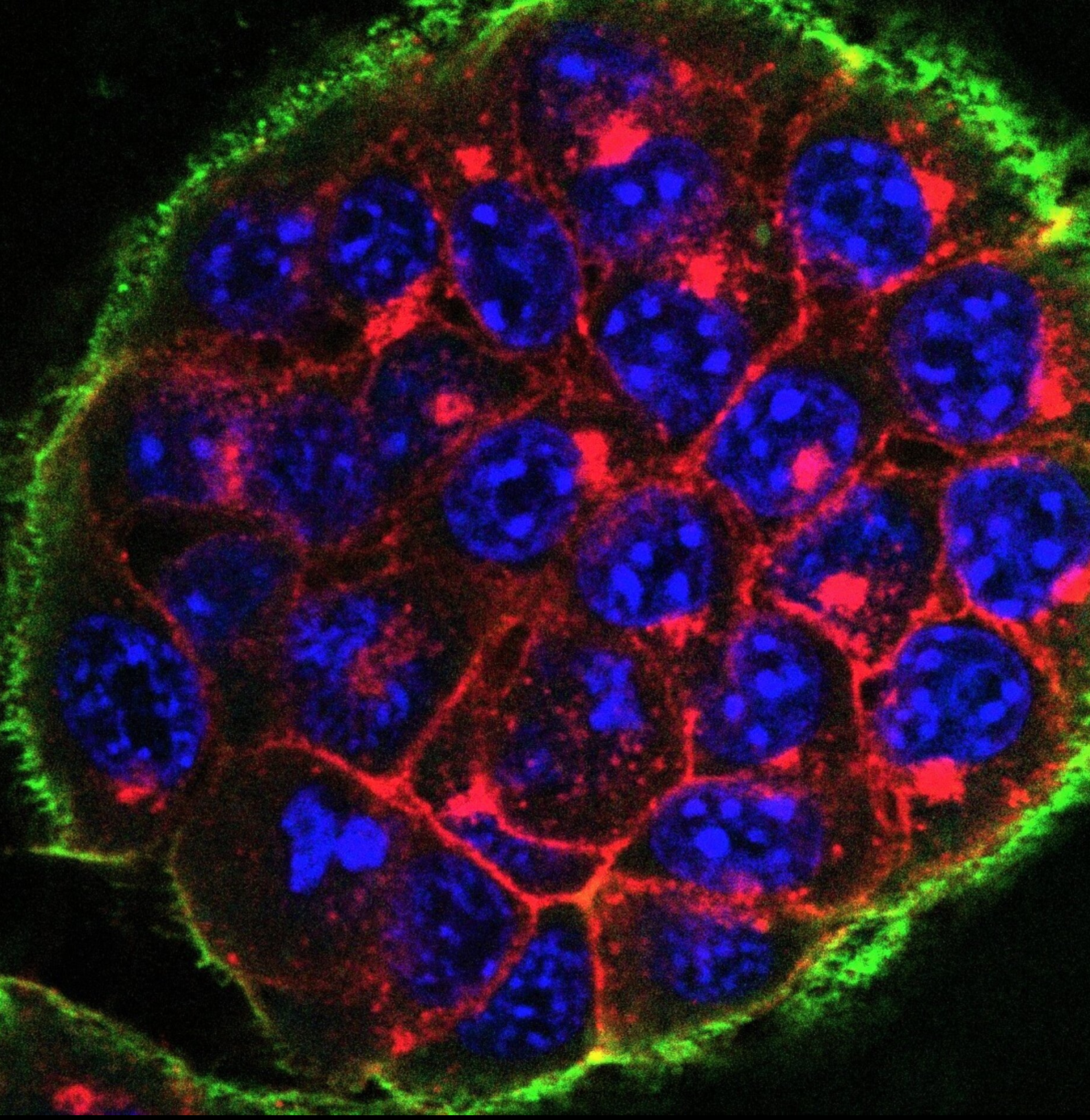
Peng Zhao (AstraZeneca)

Antibodies used: CD31 (1:500, R&D system), human Fc (1:1000, Jackson Immunoresearch), or streptavidin-Alexa Fluor 488 (1:500, Jackson Immunoresearch)

Instrument used: Leica TCS SP5

October

M	T	W	T	F	S	S
ANTIBODY SOCI.ETY THIS MONTH: 1976: British government declines to patent monoclonal antibodies	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15 2021: LAVA Therapeutics announces first US Orphan Drug designation for Gammabody LAVA-051	16 1984: N.K. Jerne, G.J.F. Köhler and C. Milstein won Nobel Prize "for theories concerning the specificity in development and control of the immune system and the discovery of the principle for production of mAbs"	17	18	19 1972: Rodney R. Porter wins Nobel Prize in Physiology or Medicine “for their discoveries concerning the chemical structure of antibodies”	20
21	22	23	24	25	26	27 1897: Lonza was incorperated
28	29	30	31 2022: FairJourney Biologics won award at Export & International Ceremony Portugal	Upcoming meetings		Notes



LIGHTENING UP CANCER CELLS WITH ANTIBODIES: Three-channel confocal image showing intracellular uptake of an Alexa-647-labeled antibody (red) in fixed pancreatic cancer cells. The antibody, directed against a cell surface receptor, is selectively internalized by receptor-mediated endocytosis, making it an ideal targeted delivery vehicle for anti-cancer drugs. The plasma membrane, in green, is labeled with wheat-germ agglutinin (WGA), while nuclei, in blue, are stained with DAPI

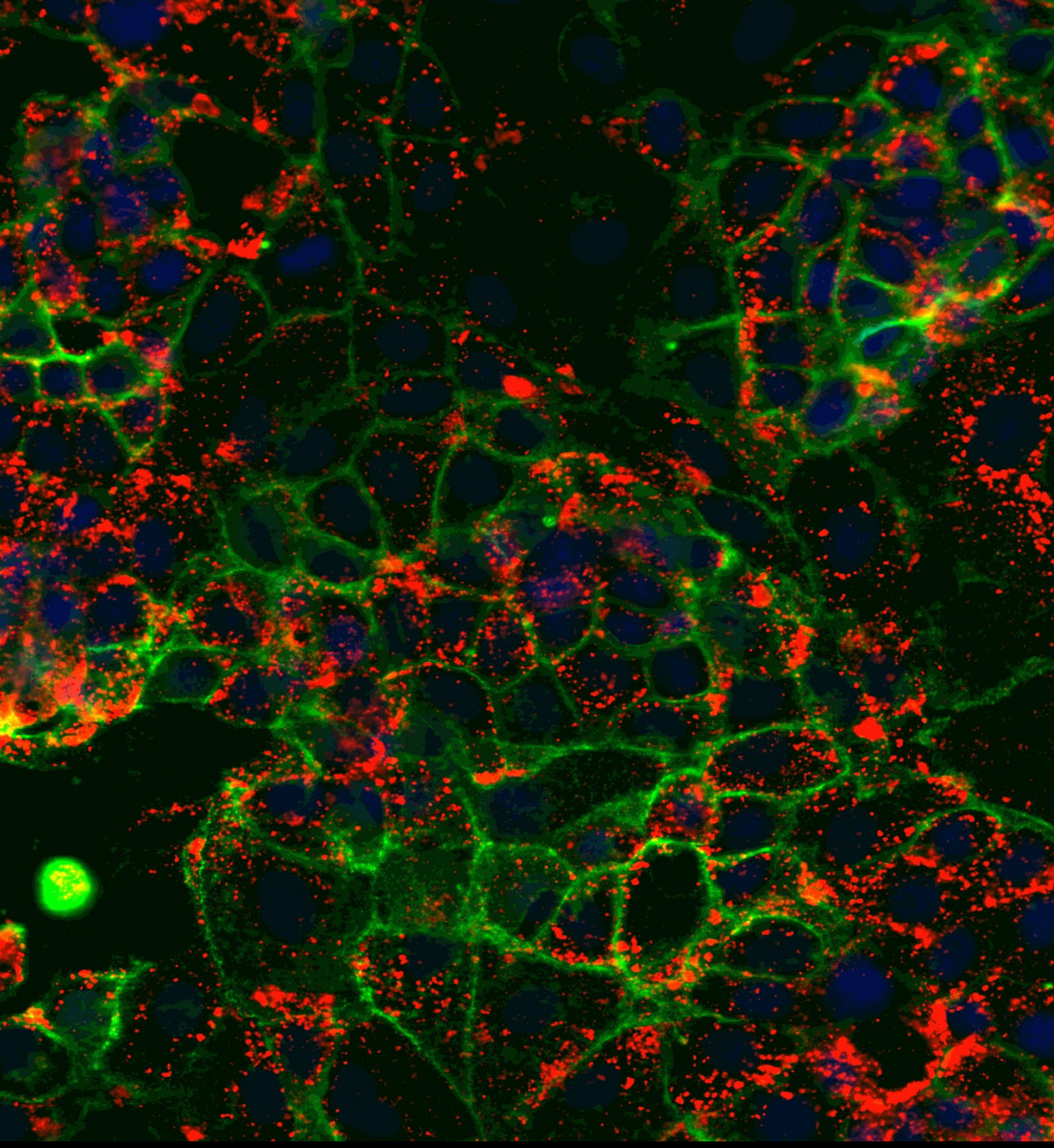
Virginia Metrangolo (University of Copenhagen, Denmark)

Antibodies used:one antibody was used; this is an in-house produced antibody targeting a cell surface receptor. For the purpose of imaging, it was labeled with the fluorochrome Alexa-647.

Instrument used: Zeiss Confocal LSM900, 40X (oil) objective.

November

M	T	W	T	F	S	S
ANTIBODY SOCIETY **Upcoming meetings**			THIS MONTH: 2018: Beacon Intelligence was founded	1	2	3 2017: First patient treated in first clinical trial using monoclonal antibody drug to treat schizophrenia (Natalizumab)
4	5	6	7 1969: Fluorescence activated cell sorter (FACS) published	8	9	10
11	12	13	14	15	16	17
18	19	20 2018: Novimmune/Light Chain Biosicences first FDA approval, Emapalumab	21 2020: FDA emergency authorisation for the first mAb for COVID-19 (Regeneron Pharmaceuticals)	22 1983: Happy birthday ImmunoPrecise Antibodies	23	24
26 1997: FDA approved the first monoclonal antibody for cancer treatment (Rituximab)	27	28	29	Notes		



PRECLINICAL OPTIMIZATION OF Ly6E-TARGETED ADCS FOR INCREASED DURABILITY AND EFFICACY OF ANTI-TUMOUR RESPONSE: Kuramochi cells were incubated with 2 µg/ml of the indicated antibodies at 4°C for 1 h, washed, and then incubated at 37°C for the indicated periods of time

Josefa Chuh (Genentech)

Antibodies used: rabbit anti-LAMP1 (Sigma Aldrich, L1418), donkey anti-human IgG-488 (Jackson ImmunoResearch, 709–546-149), and donkey anti- rabbit IgG AF546 (Invitrogen, A10040)

Instrument used: GE In Cell Analyzer

December

M	T	W	T	F	S	S
ANTI BODY SOCI . ETY Come and find us at the Antibody Engineering & Therapeutics conference in San Diego, California Thanks for another year of support! Look out for our 2025 calender					Have you checked out PipeBio yet? They have a single platform that enables scientists to discover better drugs, faster.	1
2	3 2012: YUMAB GmbH spun-off from the University of Braunschweig	4	5	6	7	8 1980: Nobel Lecture "discoveries concerning genetically determined structures on the cell surface that regulate immunological reactions" held by The Jackson Laboratory's G.D. Snell
9	10 1997: First humanised monoclonal antibody approved for market (Daclizumab)	11	12	13	14	15
16	17	18	19	20	21 Winter Solstice (09:20 GMT)	22 1994: First chimeric monoclonal antibody therapeutic approved for market (Abciximab)
23	24	25	26	27	28	29
30	31 2002: First fully human monoclonal antibody drug approved for market (Adalimumab)	Upcoming meetings			Notes	

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