nature REVIEWS
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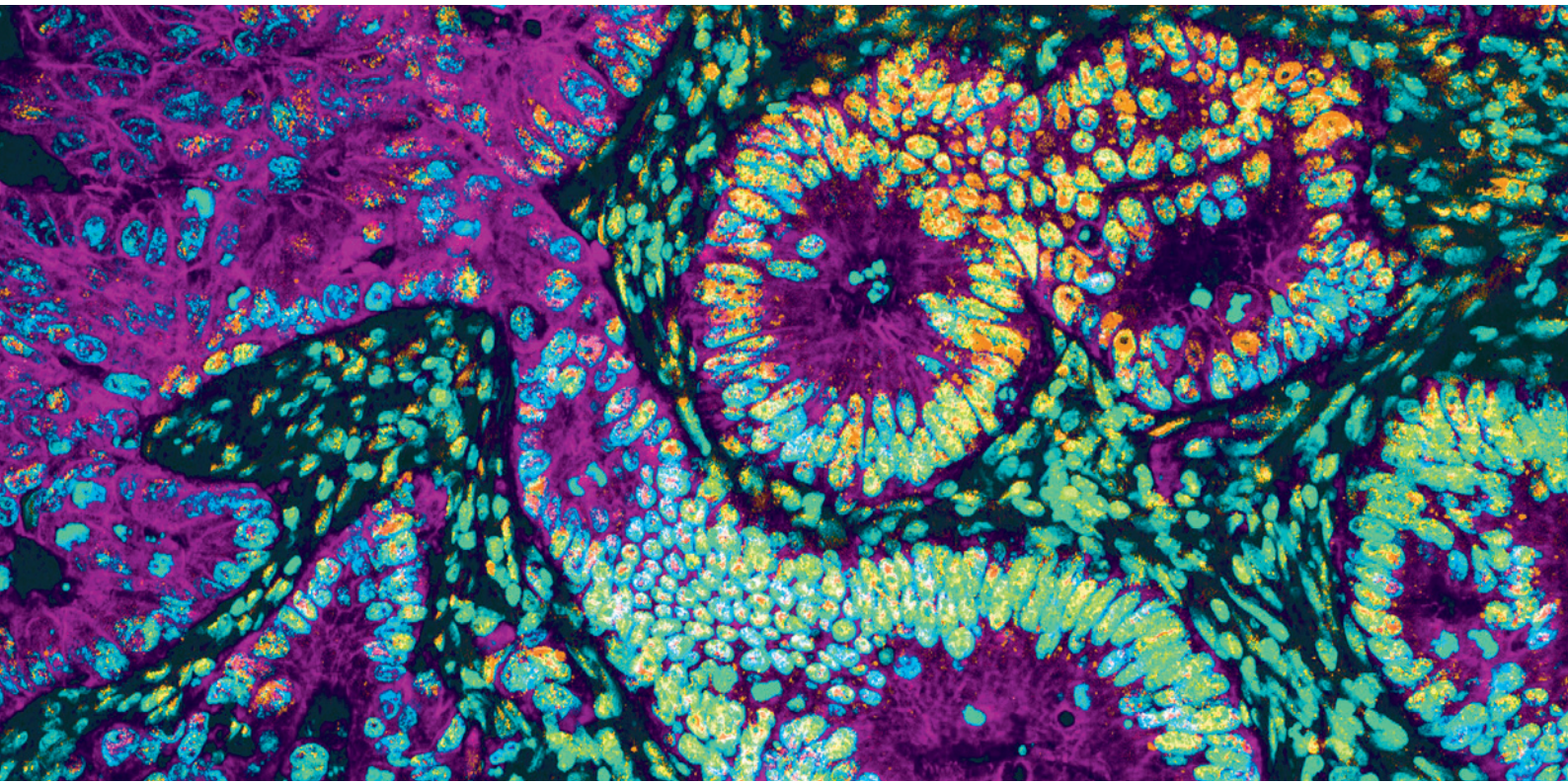
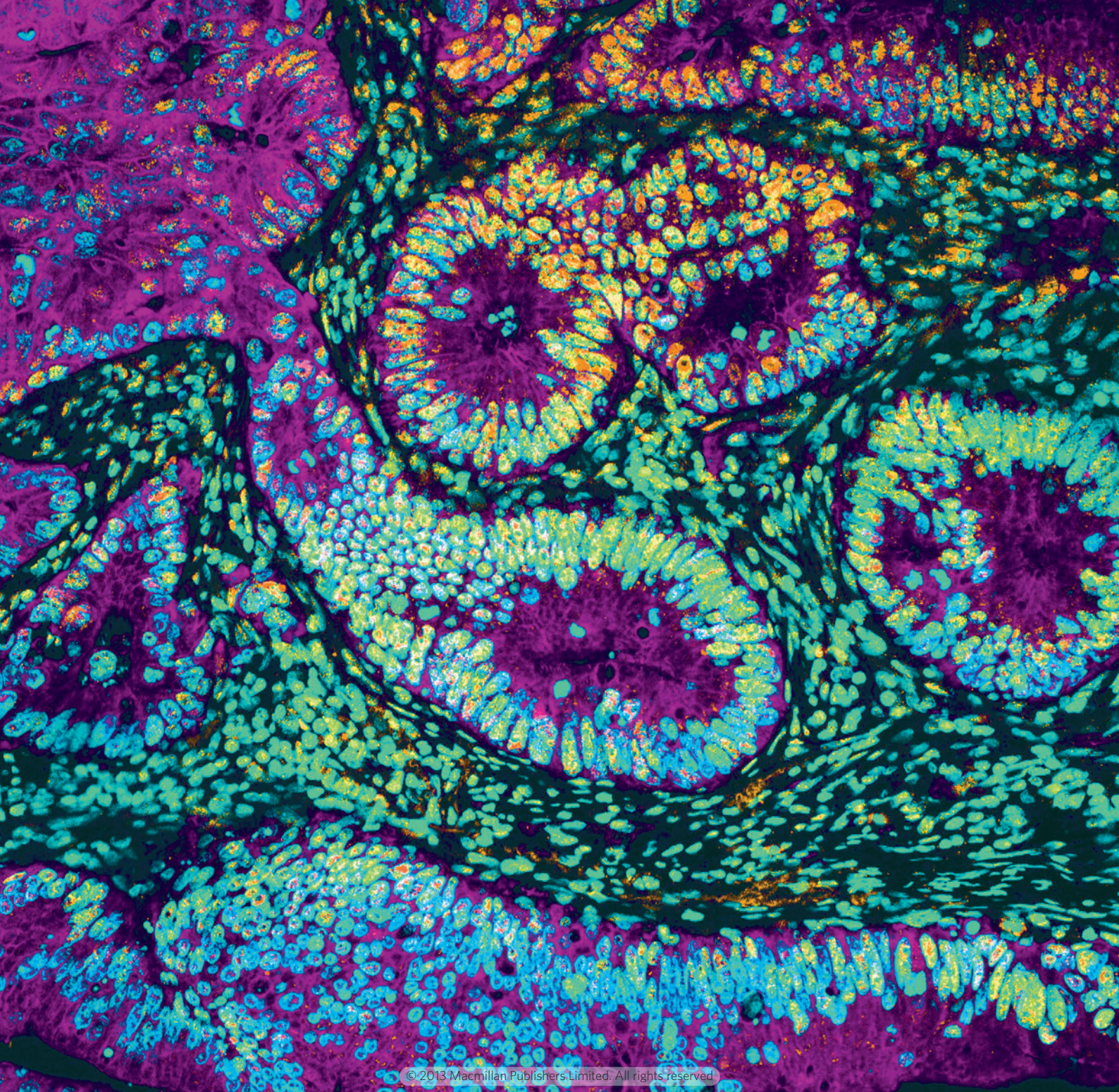
CANCER CLINICAL ONCOLOGY



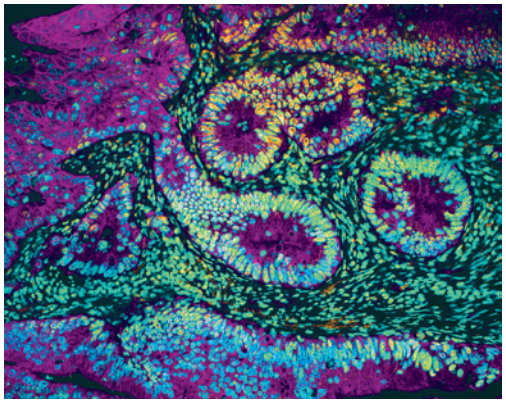


nature REVIEWS CANCER

nature REVIEWS CLINICAL ONCOLOGY

The *Nature Reviews Cancer* calendar for 2014 has a clinical twist. As well as plundering our own image bank for more clinically oriented figures, we have chosen six images and figures from our sister journal, *Nature Reviews Clinical Oncology*. All of these images convey some of the important aspects of clinical cancer research, thus producing a 'bench to bedside and back again' overview. At the end of the calendar we have included some additional Reviews and Perspectives that discuss important topics that are related to each figure, such as biomarkers, targeted therapies, cancer imaging, detection and diagnosis. We have also included images that focus on particular types of cancer, such as ovarian, lung and prostate. As always, we are indebted to our authors for producing such good ideas for figures and the excellent articles that go with them.

We hope that you find this calendar of use and we look forward to meeting some of you at the 2014 cancer-related conferences that are listed in the back of the calendar. Our calendar is freely available thanks to support from OriGene.

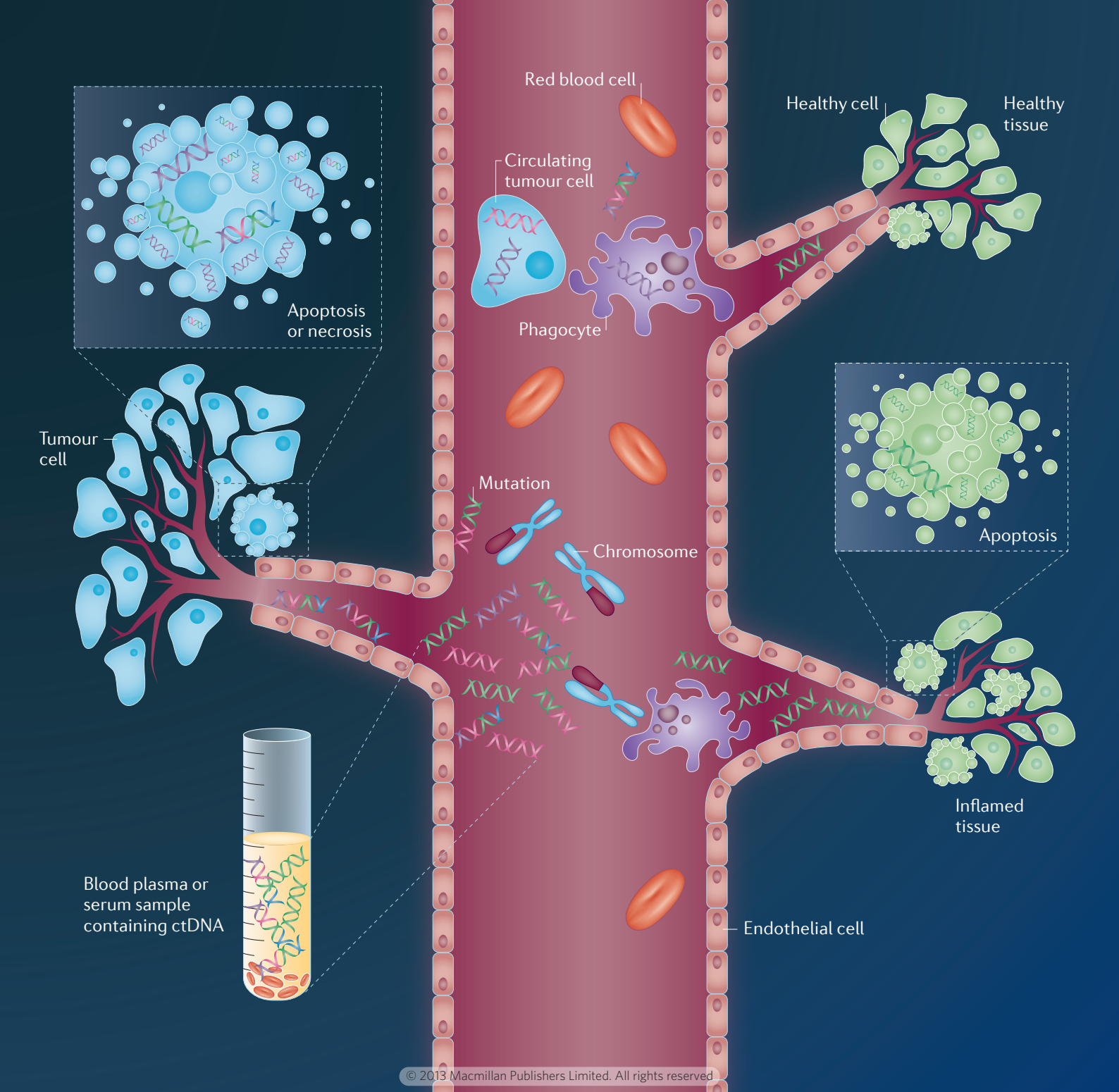


Nature Reviews Cancer:
http://www.nature.com/nrc/index.html
Nature Reviews Clinical Oncology:
http://www.nature.com/nrclinonc/index.html
Follow @NatureRevCancer and @NatRevClinOncol on Twitter: http://twitter.com/NatureRevCancer
http://twitter.com/NatRevClinOncol

Calendar compiled and edited by Nicola McCarthy and Lisa Hutchinson
Copy-edited by Simon Neil
Designed and illustrated by Lara Crow

LIST OF ABBREVIATIONS USED IN THE CALENDAR:

CAIX, carbonic anhydrase 9; COX-2, cyclooxygenase 2; CRC, colorectal cancer; ctDNA, circulating tumour DNA; CXCR, CXC-chemokine receptor; ECM, extracellular matrix; EGF, epidermal growth factor; EGFR, epidermal growth factor receptor; FGF, fibroblast growth factor; FGFR, FGF receptor; FOXO3A, forkhead box O3A; FVIIa, factor VIIa; GPVI, glycoprotein 6; GPIbα, glycoprotein inhibitor bα; HDAC, histone deacetylase; HGF, hepatocyte growth factor; HGPIN, high-grade prostatic intraepithelial neoplasia; HIF-1, hypoxia-inducible factor 1; ICAM, intercellular adhesion molecule; IL, interleukin; mTOR, mammalian target of rapamycin; NF-κB, nuclear factor-κB; PAR, prostate apoptosis response; PDGF, platelet-derived growth factor; PDGFR, PDGF receptor; PGE2, prostaglandin E2; PPARγ, peroxisomal proliferator-activated receptor-γ; PSGL1, P selectin ligand 1; SDF1α, stromal cell-derived factor 1α; sLe, sialyl Lewis antigen; TCF, transcription factor 1α; TGFα, transforming growth factor-α; TSC, tuberous sclerosis; VCAM, vascular cellular adhesion molecule; VEGF, vascular endothelial growth factor; VEGFR, VEGF receptor; VHL, Von Hippel–Lindau; VWF, Von Willebrand factor.



nature REVIEWS CLINICAL ONCOLOGY

JANUARY 2014

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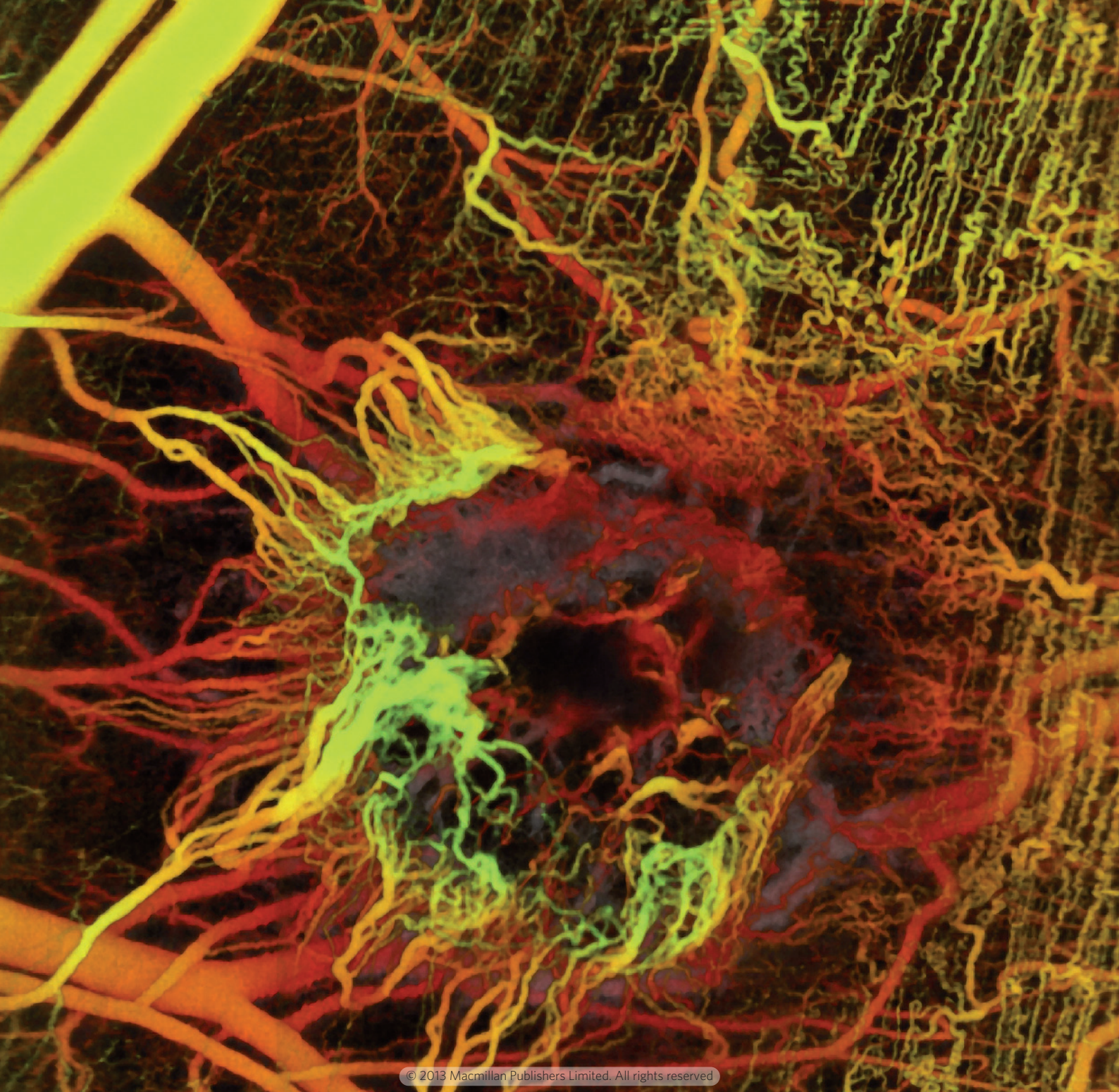

Cancer imaging — optical coherence tomography-based angiography of a murine mammary carcinoma grown in a dorsal skin flap

nature REVIEWS CANCER

FEBRUARY 2014

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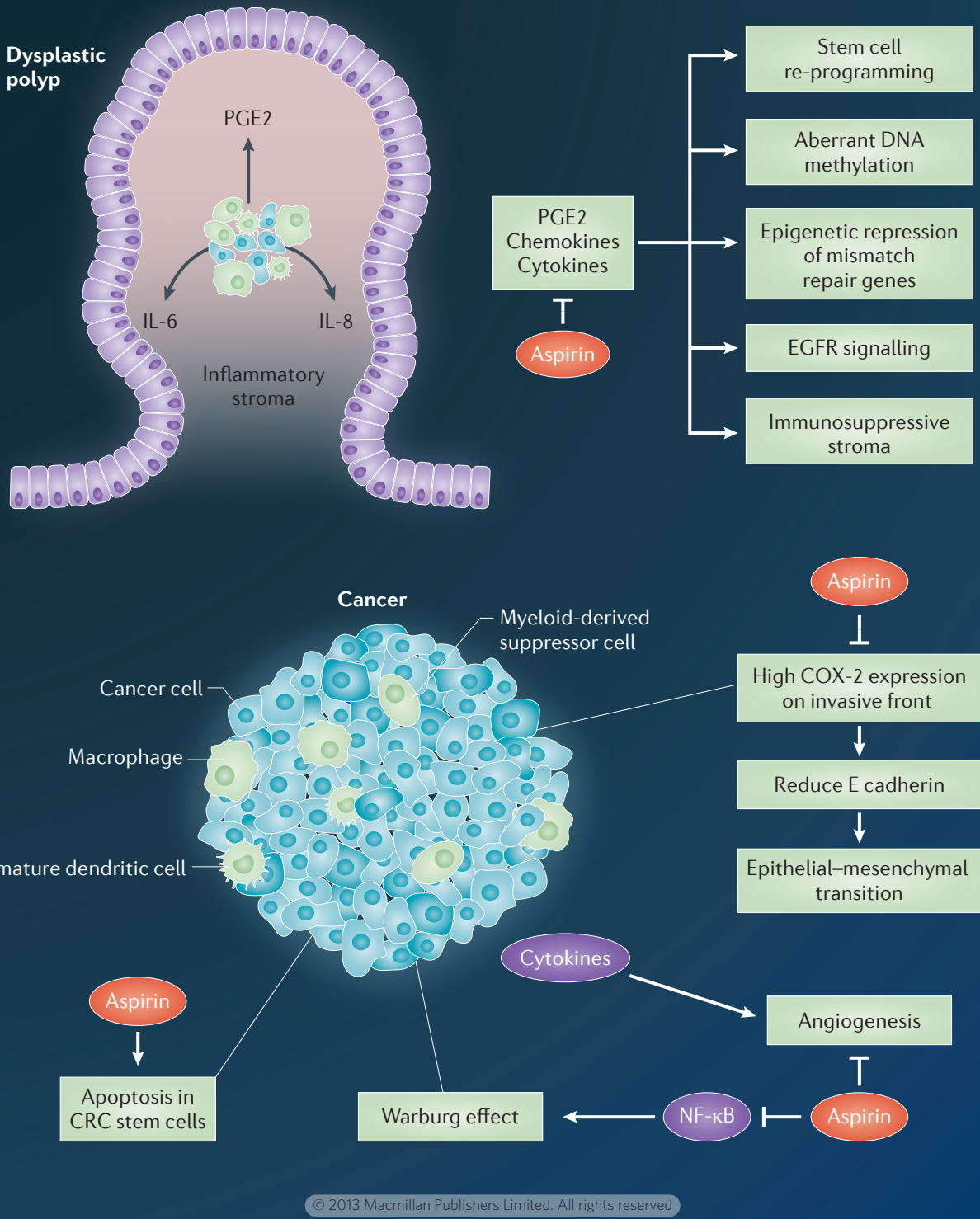

nature REVIEWS CLINICAL ONCOLOGY

MARCH 2014

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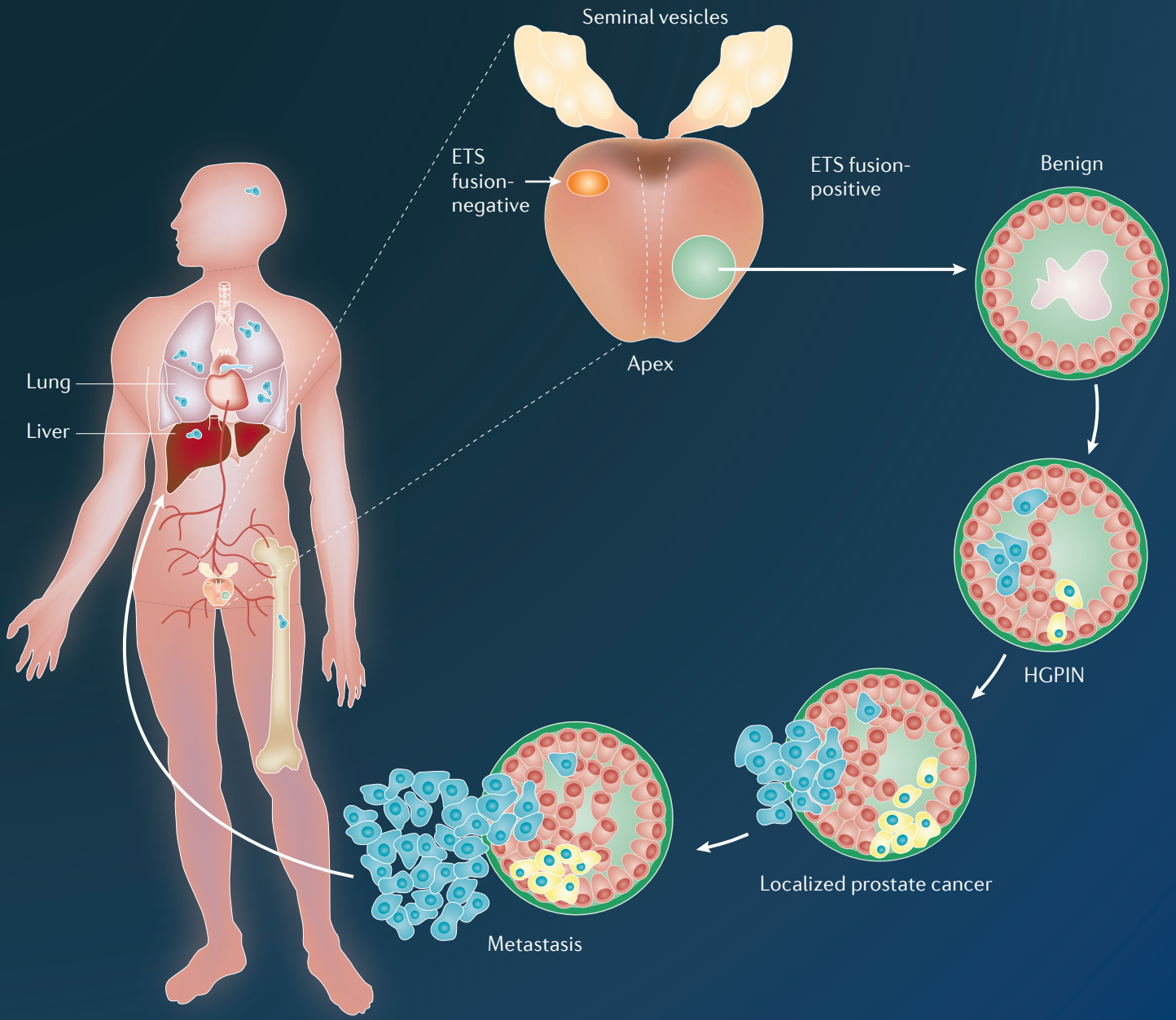

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APRIL 2014

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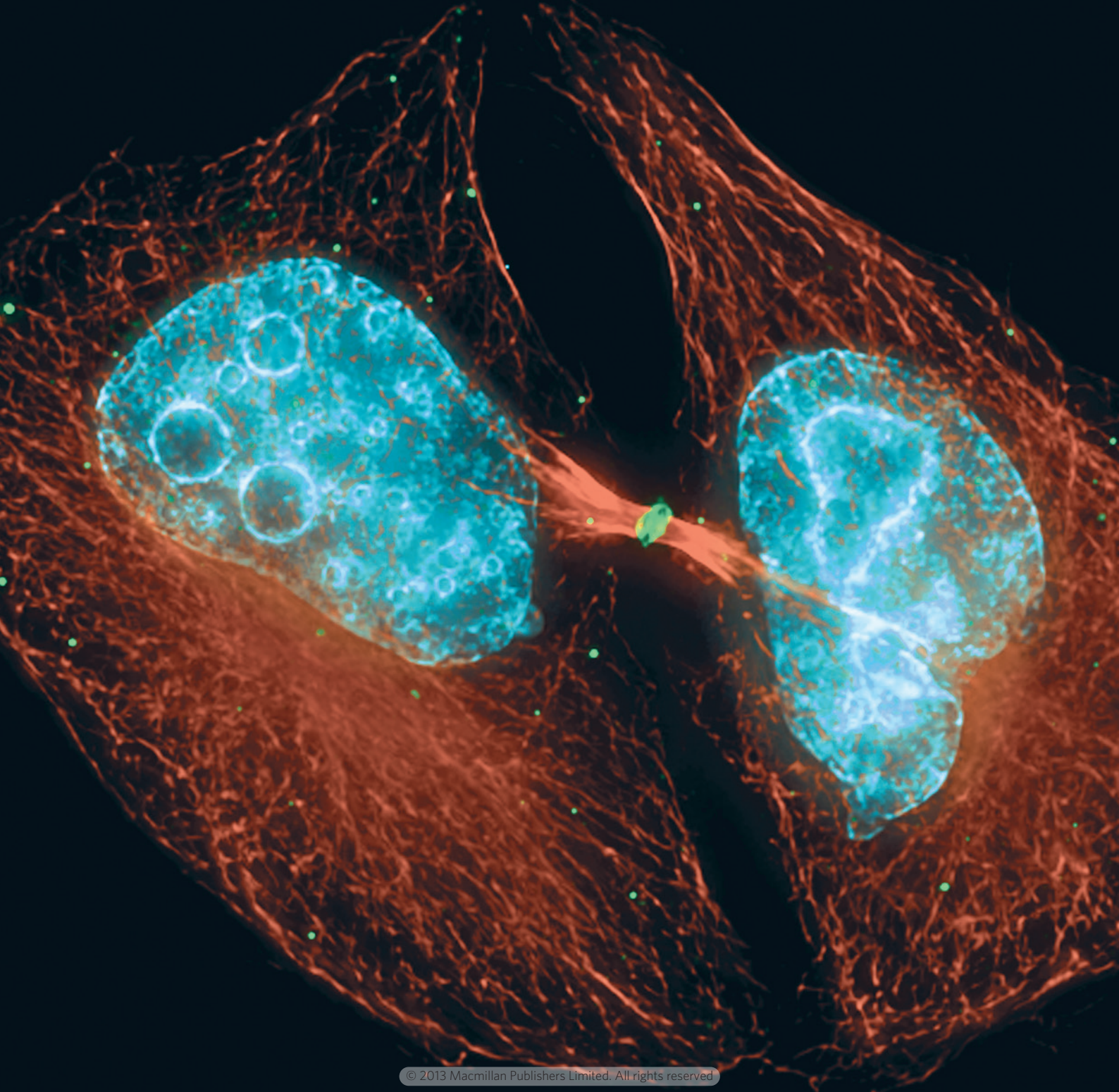

Cell cycle — an image of dividing HeLa cells, which was provided by Mark Petronczki, Cancer Research UK London Research Institute, London, UK

nature REVIEWS CLINICAL ONCOLOGY

MAY 2014

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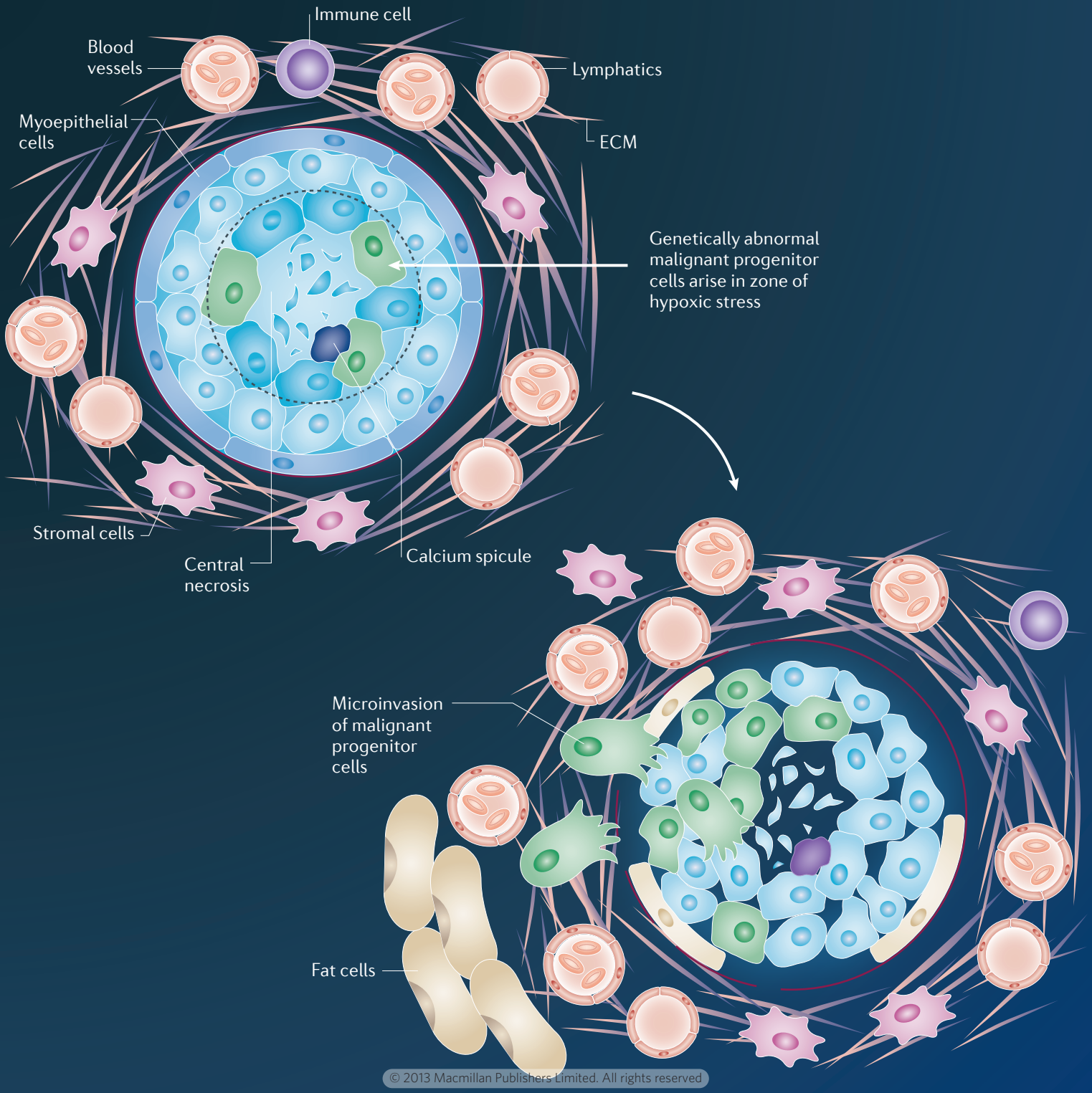

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JUNE 2014

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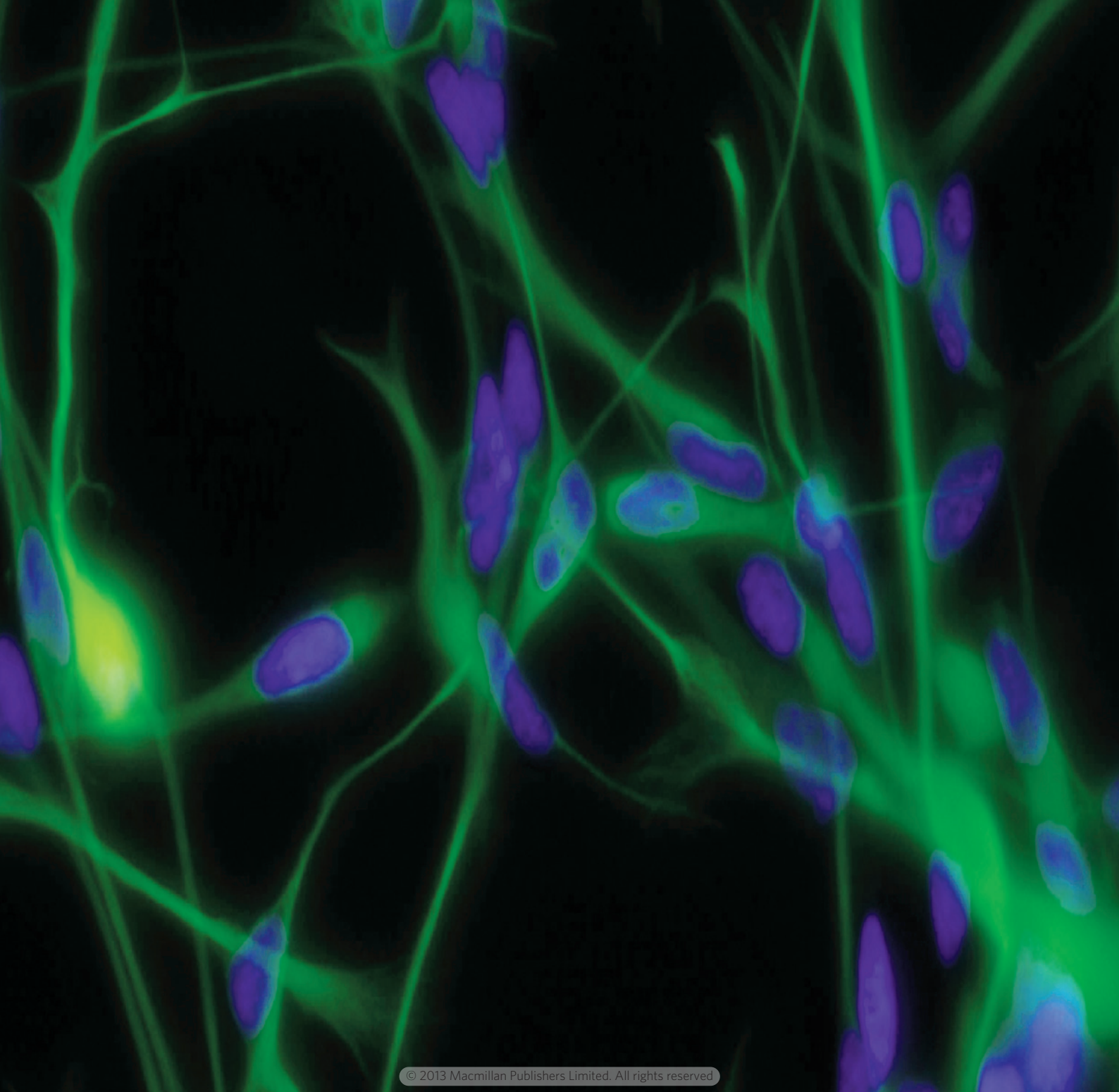

Brain cancer — an image of human differentiated glioma stem cells, which was provided by Kathreena M. Kurian of Frenchay Hospital, University of Bristol, UK

nature REVIEWS CLINICAL ONCOLOGY

JULY 2014

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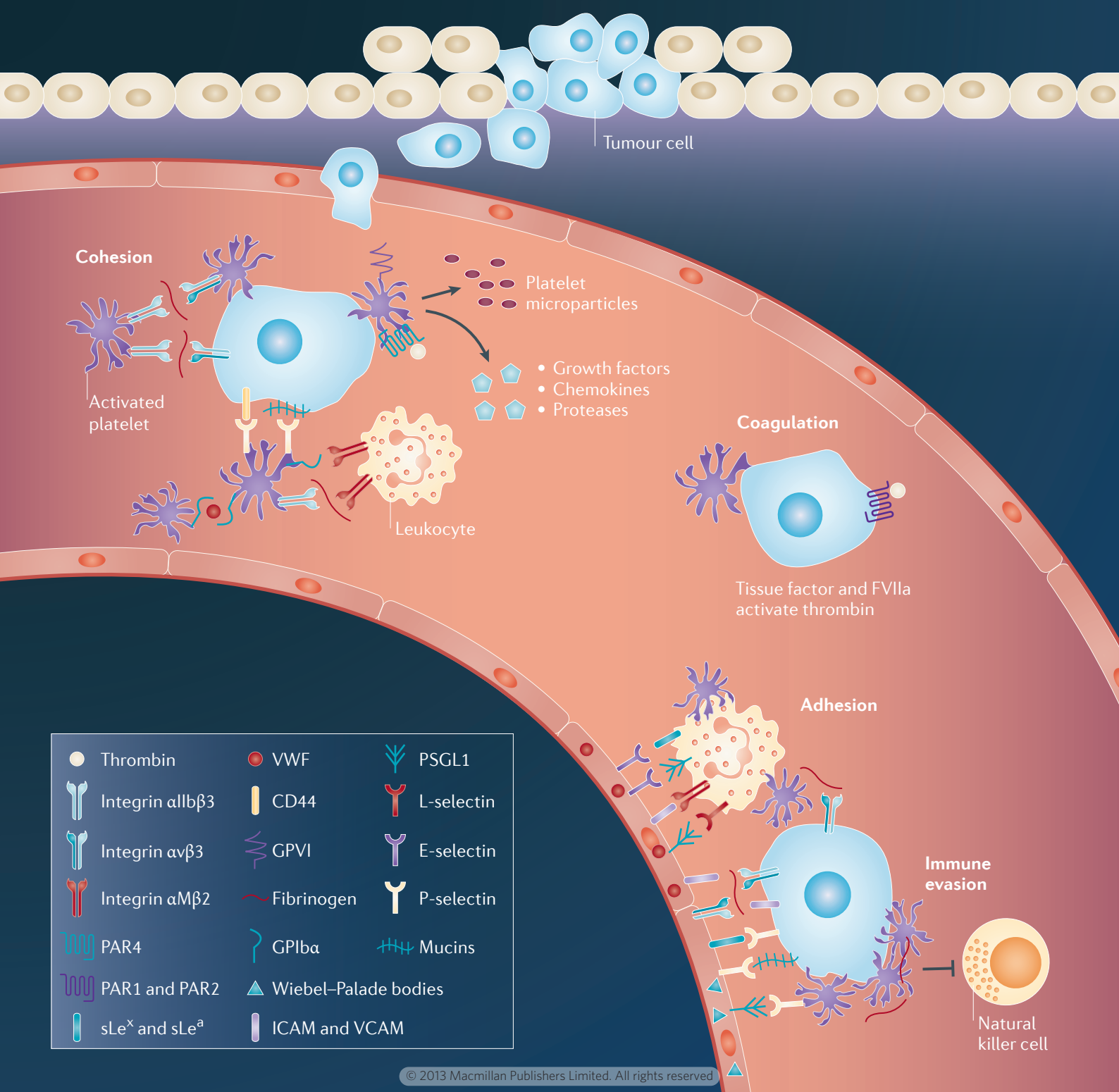

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AUGUST 2014

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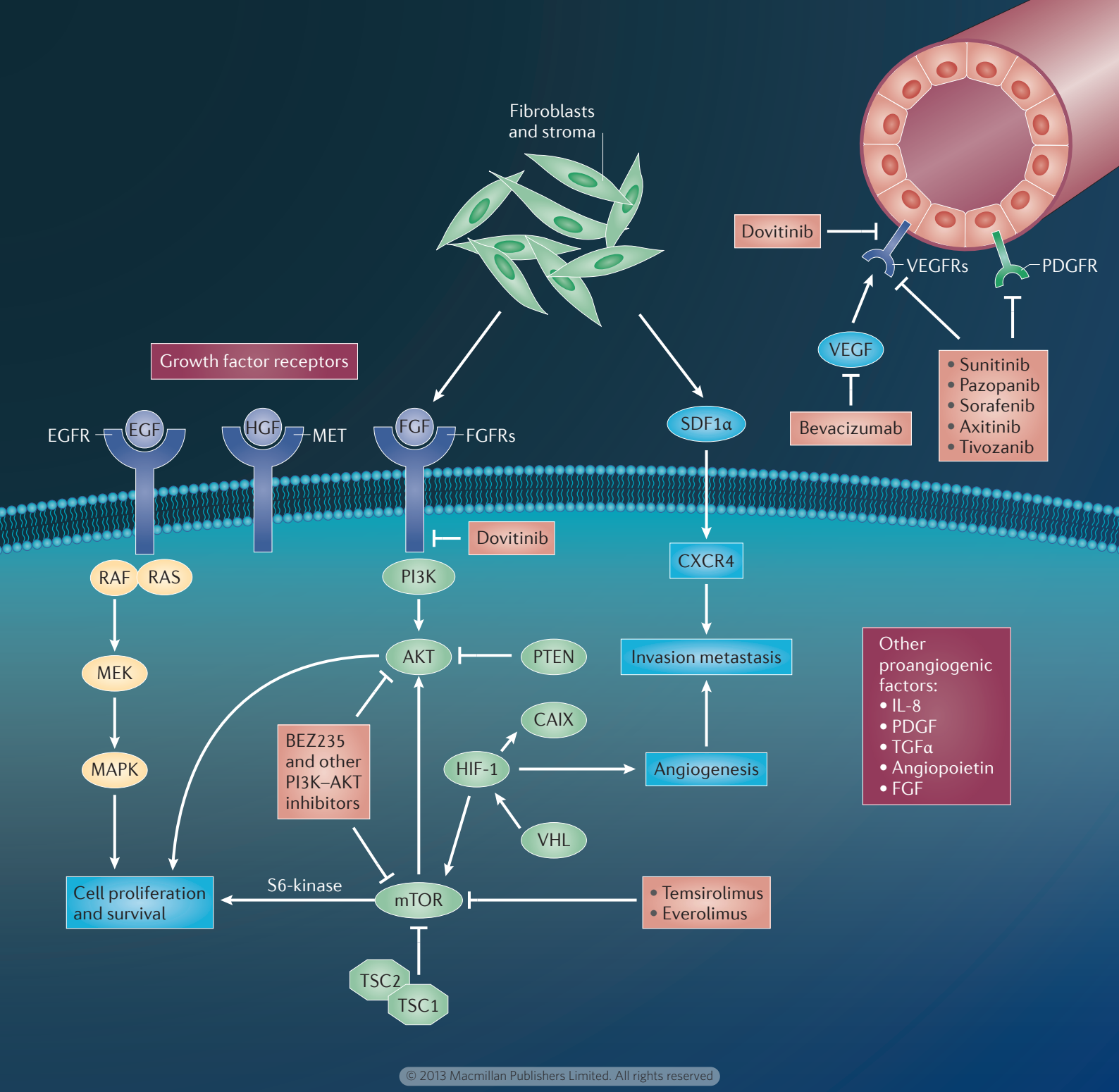

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SEPTEMBER 2014

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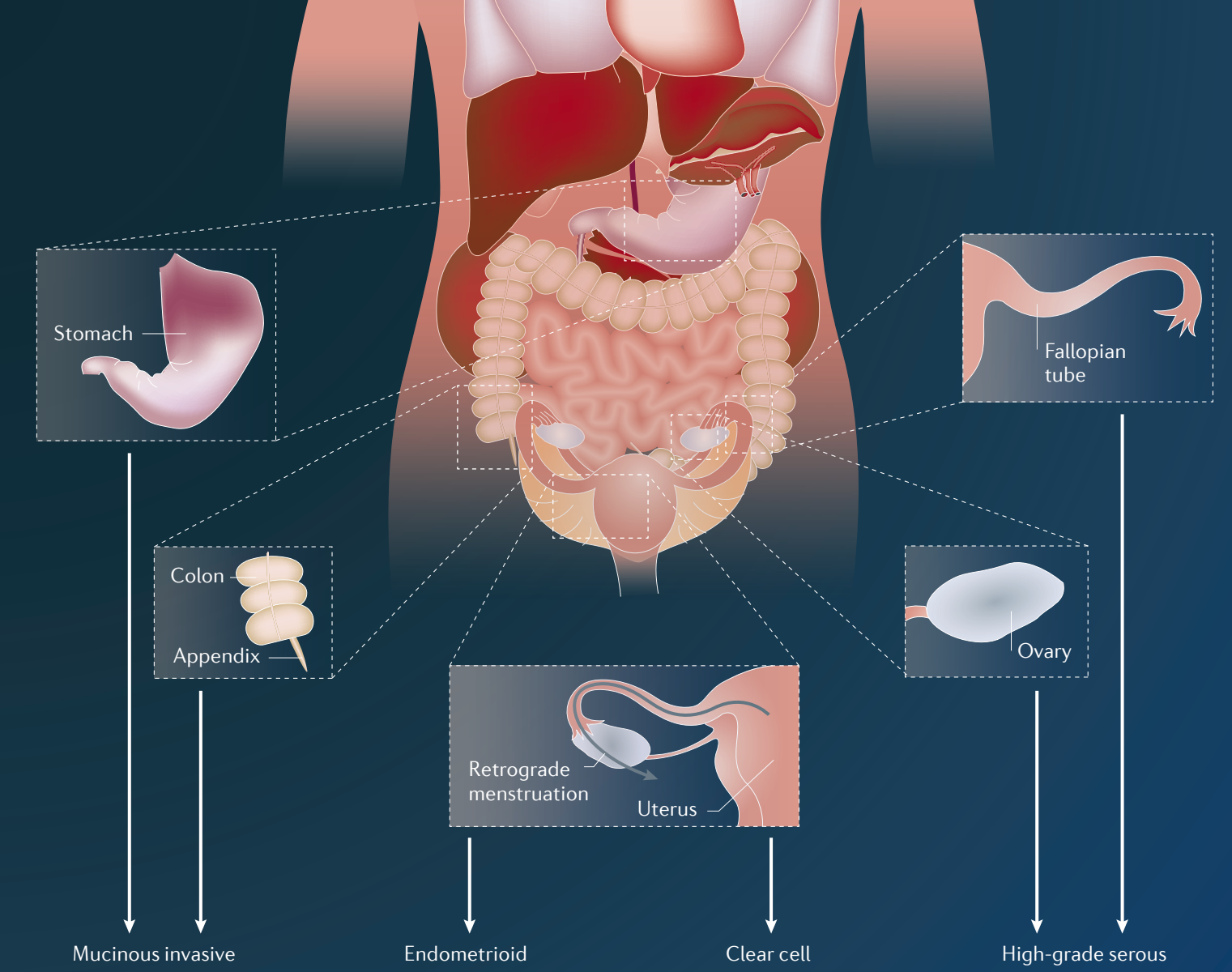

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OCTOBER 2014

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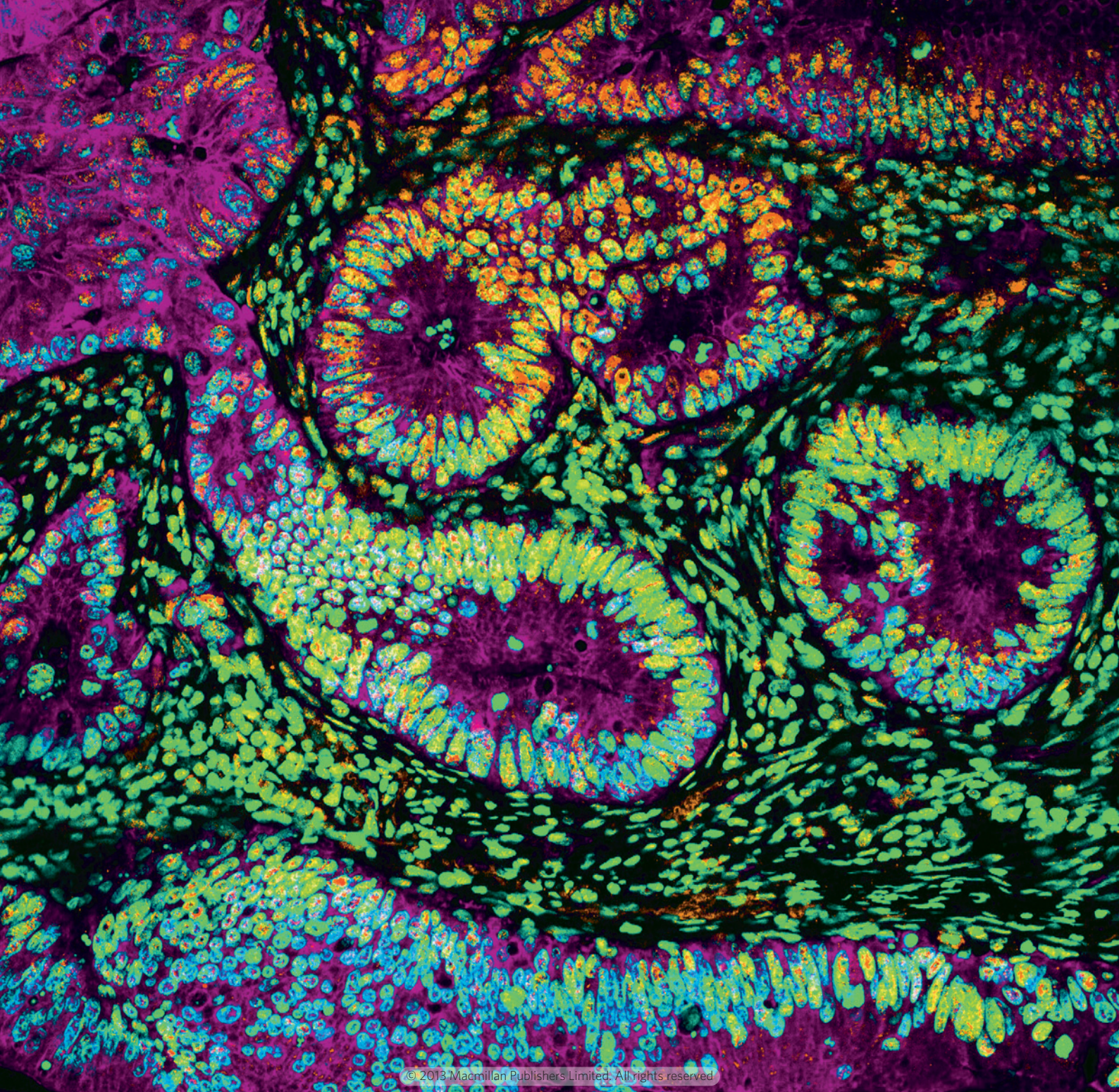

Drug response — an image of human colon carcinoma provided by Irene Chicote and Héctor G. Palmer, Vall d'Hebron Institute of Oncology, Barcelona, Spain

nature REVIEWS CLINICAL ONCOLOGY

NOVEMBER 2014

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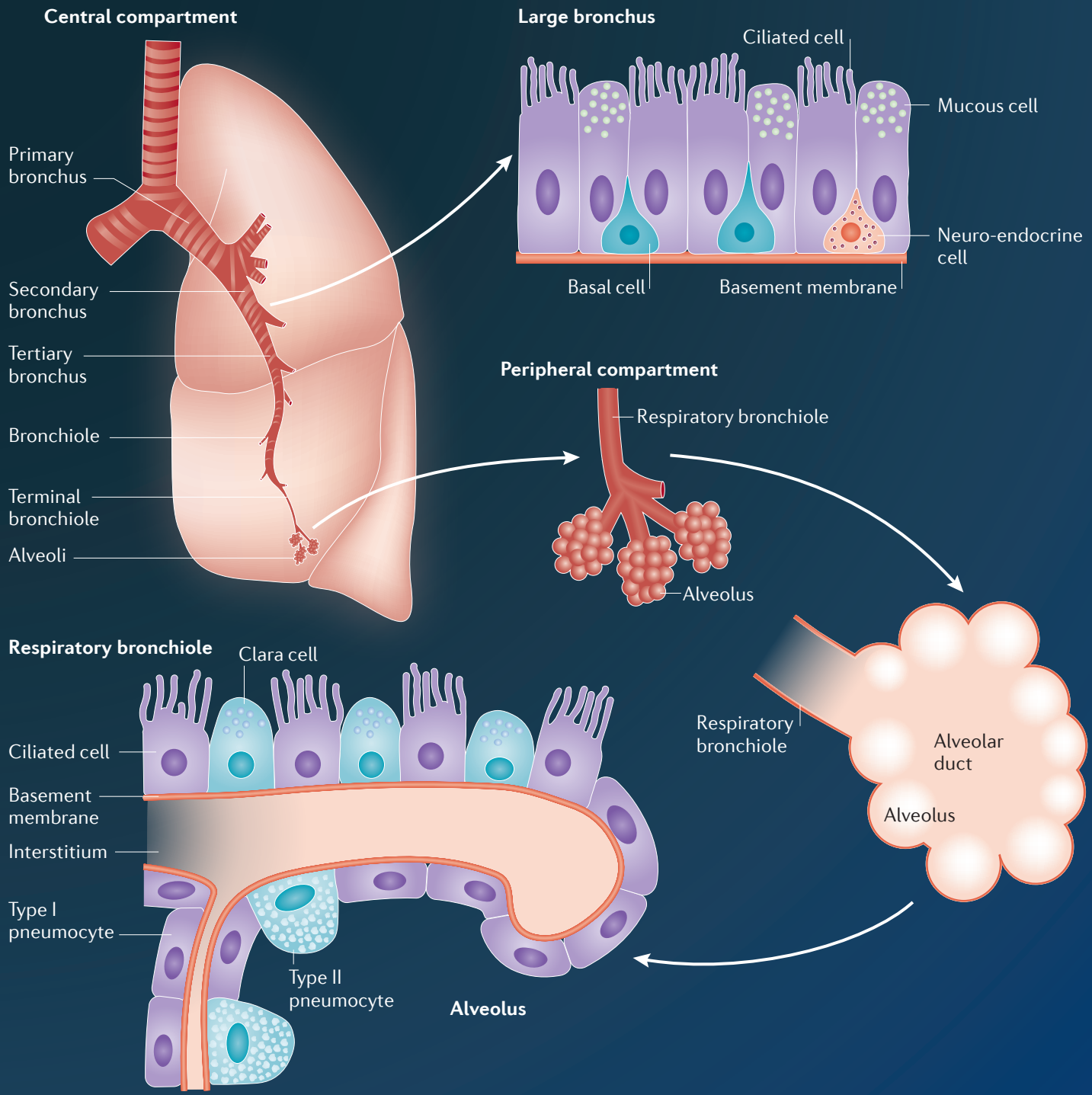

nature REVIEWS CANCER

DECEMBER 2014

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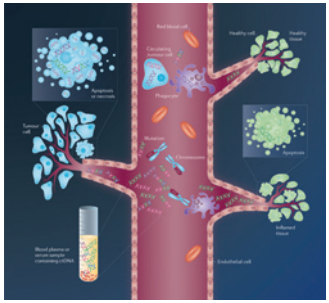
READING LIST

JANUARY

BIOMARKERS

Adapted from Crowley, E. *et al.* Liquid biopsy: monitoring cancer-genetics in the blood. *Nature Rev. Clin. Oncol.* **10**, 472–484 (2013)



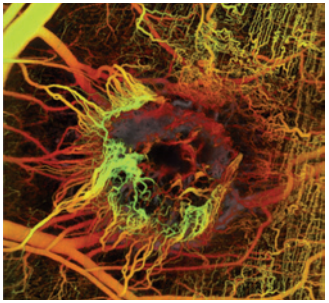
FURTHER READING

- Schwarzenbach, H., Hoon, D. S. B. & Pantel, K. Cell-free nucleic acids as biomarkers in cancer patients. *Nature Rev. Cancer* **11**, 426–437 (2011)
- De Mattos-Arruda, L., *et al.* Circulating tumour cells and cell-free DNA as tools for managing breast cancer. *Nature Rev. Clin. Oncol.* **10**, 377–389 (2013)
- Hanash, S. M., Baik, C. S. & Kallioniemi, O. Emerging molecular biomarkers — blood-based strategies to detect and monitor cancer. *Nature Rev. Clin. Oncol.* **8**,142–150 (2011)

FEBRUARY

CANCER IMAGING

Adapted from Vakoc, B. J., Fukumura, D., Jain, R. K. & Bouma, B. E. Cancer imaging by optical coherence tomography: preclinical progress and clinical potential. *Nature Rev. Cancer* **12**, 363–368 (2012). Image is reproduced, with permission, from Vakoc, B. J. *et al. Nature Med.* **15**, 1219–1223 (2009) © (2009) Macmillan Publishers Ltd. All rights reserved.



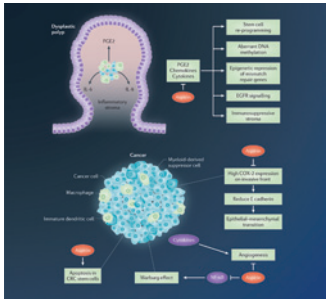
FURTHER READING

- Nguyen, Q. T. & Tsien, R. Y. Fluorescence-guided surgery with live molecular navigation — a new cutting edge. *Nature Rev. Cancer* **13**, 653–662 (2013)
- Morgan, B. Opportunities and pitfalls of cancer imaging in clinical trials. *Nature Rev. Clin. Oncol.* **8**, 517–527 (2011)
- Focus on Imaging www.nature.com/nrclinonc/focus/imaging

MARCH

COLON CANCER

Adapted from Chia, W. K., Ali, R. & Toh, H. C. Aspirin as adjuvant therapy for colorectal cancer — reinterpreting paradigms. *Nature Rev. Clin. Oncol.* **9**, 561–570 (2012)



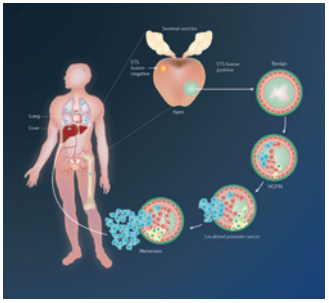
FURTHER READING

- Langley, R. E. & Rothwell, P. M. Biological markers: Potential biomarker for aspirin use in colorectal cancer therapy. *Nature Rev. Clin. Oncol.* **10**, 8–10 (2013)
- Thun, M. J., Jacobs, E. J. & Patrono, C. The role of aspirin in cancer prevention. *Nature Rev. Clin. Oncol.* **9**, 259–267 (2012)
- Wang, D. & DuBois, R. N. Eicosanoids and cancer. *Nature Rev. Cancer* **10**, 181–193 (2010)

APRIL

PROSTATE CANCER

Adapted from Kumar-Sinha, C., Tomlins, S. A. & Chinnaiyan, A. M. Recurrent gene fusions in prostate cancer. *Nature Rev. Cancer* **8**, 497–511 (2008)



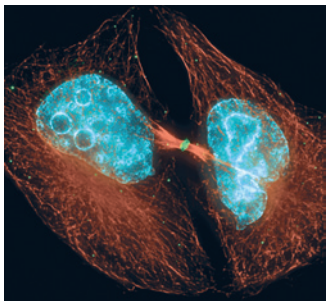
FURTHER READING

- Sutcliffe, S. & Colditz, G. A. Prostate cancer: is it time to expand the research focus to early-life exposures? *Nature Rev. Cancer* **13**, 208–218 (2013)
- Risbridger, G. P., Davis, I. D., Birrell, S. N. & Tilley, W. D. Breast and prostate cancer: more similar than different. *Nature Rev. Cancer* **10**, 205–212 (2010)
- Scher, H. I., Morris, M. J., Larson, S. & Heller, G. Validation and clinical utility of prostate cancer biomarkers. *Nature Rev. Clin. Oncol.* **10**, 225–234 (2013)

MAY

CELL CYCLE

Adapted from the 2011 cover of *Nature Rev. Clin. Oncol.* The image shows human cancer cell lines (HeLa) with α-tubulin pseudo-coloured red, DNA in blue and the midbody pseudo-coloured green.



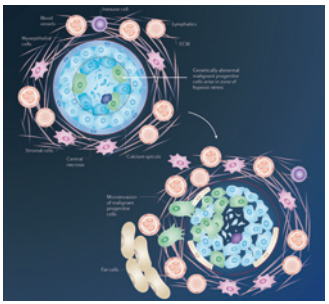
FURTHER READING

- Alcolea, M. P. & Jones, P. H. Tracking cells in their native habitat: lineage tracing in epithelial neoplasia. *Nature Rev. Cancer* **13**, 161–171 (2013)
- Sadasivam, S. & DeCaprio, J. A. The DREAM complex: master coordinator of cell cycle-dependent gene expression. *Nature Rev. Cancer* **13**, 585–595 (2013)
- Komlodi-Pasztor, E., Sackett, D., Wilkerson, J. & Fojo, T. Mitosis is not a key target of microtubule agents in patient tumors. *Nature Rev. Clin. Oncol.* **8**, 244-250 (2011)

JUNE

DIAGNOSIS

Adapted from Espina, V. & Liotta, L. A. What is the malignant nature of human ductal carcinoma *in situ*? *Nature Rev. Cancer* **11**, 68–75 (2011)



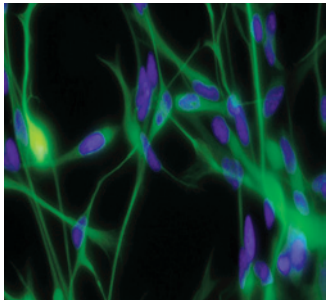
FURTHER READING

- Hamilton, W. Diagnosis: Cancer diagnosis in UK primary care. *Nature Rev. Clin. Oncol.* **9**, 251–252 (2012)
- Lao-Sirieix, P. & Fitzgerald, R. C. Screening for oesophageal cancer. *Nature Rev. Clin. Oncol.* **9**, 278–287 (2012)
- Kulasingam, V., Pavlou, M. P. & Diamandis, E. P. Integrating high-throughput technologies in the quest for effective biomarkers for ovarian cancer. *Nature Rev. Cancer* **10**, 371–378 (2010)

JULY

BRAIN CANCER

Adapted from the 2012 cover of *Nature Rev. Clin. Oncol.* An immunofluorescence image of primary culture differentiated human glioma stem cells derived from adult glioblastoma. Cells have pleomorphic nuclei and lack of contact inhibition.



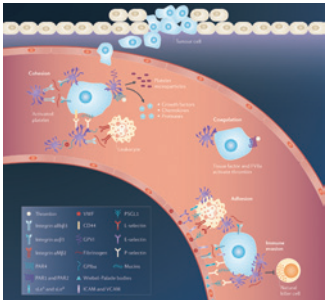
FURTHER READING

- Tanaka, S., Louis, D. N., Curry, W. T., Batchelor, T. T. & Dietrich, J. Diagnostic and therapeutic avenues for glioblastoma: no longer a dead end? *Nature Rev. Clin. Oncol.* **10**, 14–26 (2013)
- Steeg, P. S., Camphausen, K. A. & Smith, Q. R. Brain metastases as preventive and therapeutic targets. *Nature Rev. Cancer* **11**, 352–363 (2011)
- Huse, J. T. & Holland, E. C. Targeting brain cancer: advances in the molecular pathology of malignant glioma and medulloblastoma. *Nature Rev. Cancer* **10**, 319–331 (2010)

AUGUST

METASTASIS

Adapted from Gay, L. J. & Felding-Habermann, B. Contribution of platelets to tumour metastasis. *Nature Rev. Cancer* **11**, 123–134 (2011)



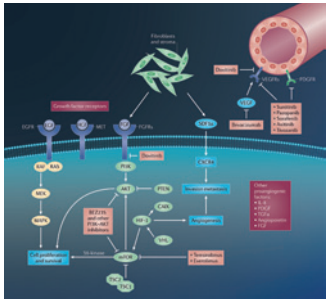
FURTHER READING

- De Craene, B. & Berx, G. Regulatory networks defining EMT during cancer initiation and progression. *Nature Rev. Cancer* **13**, 97–110 (2013)
- Brabletz, T. To differentiate or not — routes towards metastasis. *Nature Rev. Cancer* **12**, 425–436 (2012)
- Mina, L. A. & Sledge, G. W Jr. Rethinking the metastatic cascade as a therapeutic target. *Nature Rev. Clin. Oncol.* **8**, 325–332 (2011)
- Focus on Migration and metastasis www.nature.com/nrc/focus/migration

SEPTEMBER

KIDNEY CANCER

Adapted from Bellmunt, J., Teh, B. T., Tortora, G. & Rosenberg, J. E. Molecular targets on the horizon for kidney and urothelial cancer. *Nature Rev. Clin. Oncol.* **10**, 557–570 (2013)



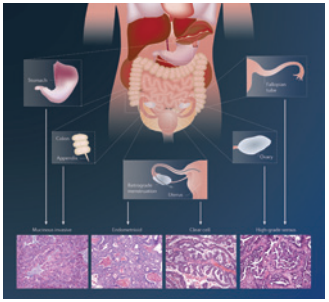
FURTHER READING

- Escudier, B., Szczylik, C., Porta, C. & Gore, M. Treatment selection in metastatic renal cell carcinoma: expert consensus. *Nature Rev. Clin. Oncol.* **9**, 327–337 (2012)
- Huff, V. Wilms' tumours: about tumour suppressor genes, an oncogene and a chameleon gene. *Nature Rev. Cancer* **11**, 111–121 (2011)
- Biswas, S. & Eisen, T. Immunotherapeutic strategies in kidney cancer — when TKIs are not enough. *Nature Rev. Clin. Oncol.* **6**, 478–487 (2009)

OCTOBER

OVARIAN CANCER

Adapted from Vaughan, S. *et al.*, Rethinking ovarian cancer: recommendations for improving outcomes. *Nature Rev. Cancer* **11**, 719–725 (2011)



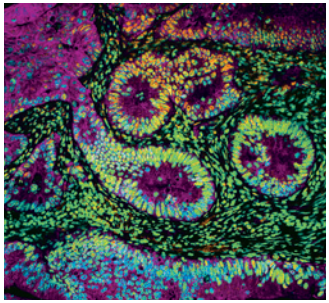
FURTHER READING

- Johnson, P. A. & Giles, J. R. The hen as a model of ovarian cancer. *Nature Rev. Cancer* **13**, 432–436 (2013)
- Kipps, E., Tan, D. S. P. & Kaye, S. B. Meeting the challenge of ascites in ovarian cancer: new avenues for therapy and research. *Nature Rev. Cancer* **13**, 273–282 (2013)
- Coleman, R. L., Monk, B. J., Sood, A. K. & Herzog, T. J. Latest research and treatment of advanced-stage epithelial ovarian cancer. *Nature Rev. Clin. Oncol.* **10**, 211–224 (2013)

NOVEMBER

DRUG RESPONSE

Adapted from the 2013 cover of *Nature Rev. Clin. Oncol.* Immunofluorescence staining for β-catenin and FOXO3A proteins as potential markers for the prediction of drug response in a histological section of a human colon carcinoma.



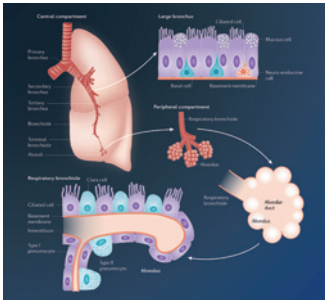
FURTHER READING

- Kuczynski, E. A., Sargent, D. J., Grothey, A. & Kerbel, R. S. Drug rechallenge and treatment beyond progression — implications for drug resistance. *Nature Rev. Clin. Oncol.* http://dx.doi.org/10.1038/nrclinonc.2013.158 (2013)
- La Thangue, N. B. & Kerr, D. J. Predictive biomarkers: a paradigm shift towards personalized cancer medicine. *Nature Rev. Clin. Oncol.* **8**, 587–596 (2011)

DECEMBER

LUNG CANCER

Adapted from Sun, S., Schiller, J. H. & Gazdar, A. F. Lung cancer in never smokers — a different disease. *Nature Rev. Cancer* **7**, 778–790 (2007)



FURTHER READING

- Houghton, A. M. Mechanistic links between COPD and lung cancer. *Nature Rev. Cancer* **13**, 233–245 (2013)
- Pao, W. & Chmielecki, J. Rational, biologically based treatment of *EGFR*-mutant non-small-cell lung cancer. *Nature Rev. Cancer* **10**, 760–774 (2010)
- Mok, T. S. Personalized medicine in lung cancer: what we need to know. *Nature Rev. Clin. Oncol.* **8**, 661–668 (2011)

CALENDAR OF EVENTS 2014

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
JANUARY				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18 AACR-Prostate
	19 cancer foundation conference, California, USA			22	23	24	25
	26	27	28	29 AACR: Cancer susceptibility and susceptibility syndromes, California, USA			
FEBRUARY							1
	2 Keystone: Developmental pathways in cancer; and Stem cells and cancer, Banff, Canada				6	7	8
	9	10	11	12	13 26th Lorne cancer conference, Victoria, Australia		
	16	17	18	19	20	21	22
	23	24	25	26	27	28	
MARCH							1
	2	3	4	5	6	7	8
	9 Keystone: Immune evolution in cancer, Whistler, Canada			12	13	14	15
	16 Keystone: Tumor metabolism, Whistler, Canada			19	20	21	22
	23	24 30th Genes and cancer meeting, Cambridge, UK			27	28	29
	30	31					
APRIL			1	2	3	4	5 AACR Annual
	6 Meeting, California, USA		8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30			
MAY					1	2	3
	4	5	6	7	8 IMPAKT 2014 Breast cancer conference, Brussels, Belgium		
	11	12	13	14	15	16	17
	18	19	20	21	22	23 EMBO conference: Cellular signalling	
	25 and cancer therapy, Cavtat, Croatia		27	28	29	30 50th ASCO Annual Meeting, Illinois, USA	
JUNE	1	2	3	4 GRC: Cell polarity signaling, Massachusetts, USA			7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					

JULY

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5 23rd Biennial
6 Congress of the EACR, Munich, Germany		8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

					1	2
3 GRC: Rare cells in circulation, Massachusetts, USA			6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26 ESMO 2014 Congress, Madrid, Spain	
28	29	30				

OCTOBER

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26 AACR: Translational Cancer Research for Basic Scientists Workshop, Massachusetts, USA					31	

NOVEMBER

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18 EORTC–AACR–NCI International symposium, Barcelona, Spain			21	22
23	24	25	26	27	28	29
30						

DECEMBER

	1	2	3 World Cancer Congress, Melbourne, Australia			6
7	8	9 San Antonio Breast Cancer Symposium, Texas, USA			12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

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