

The background is a light blue gradient with several gold-colored circles of varying sizes scattered across it. Some circles have thin gold lines extending from them, creating a decorative, abstract pattern.

BAKER

RUSKINN

**NOBEL PRIZE TIMELINE
PRESENTATION**

1991

Hypoxia-inducible nuclear factors bind to an enhancer element located 3' to the human erythropoietin gene
Proc Natl Acad Sci USA, 88 (1991),
GL Semenza, MK Nejfelt, SM Chi, SE. Antonarakis

1993

1993

Ruskinn founded by Andrew Skinn

[Characterization of hypoxia-inducible factor 1 and regulation of DNA binding activity by hypoxia.](#)

Wang GL, Semenza GL.

J Biol Chem. 1993

1994

1994

Anaerobic Workstations Bugbox



Transcriptional regulation of genes encoding glycolytic enzymes by hypoxia-inducible factor 1.

Semenza GL, Roth PH, Fang HM, Wang GL.

J Biol Chem. 1994

1999

1999

Hypoxia Workstation Invivo₂ working with Peter Ratcliffe and Chris Pugh



The tumour suppressor protein VHL targets hypoxia-inducible factors for oxygen-dependent proteolysis.

Maxwell PH, Wiesener MS, Chang GW, Clifford SC, Vaux EC, Cockman ME, Wykoff CC, Pugh CW, Maher ER, Ratcliffe PJ. Nature. 1999

Introduction of the first generation of Concept, anaerobic & microaerophilic workstation



2001

Targeting of HIF-alpha to the von Hippel-Lindau ubiquitylation complex by O₂-regulated prolyl hydroxylation.

2001

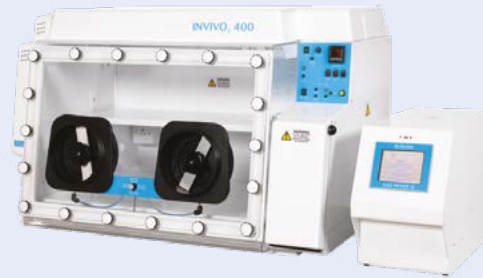
Jaakkola P, Mole DR, Tian YM, Wilson MI, Gielbert J, Gaskell SJ, von Kriegsheim A, Hebestreit HF, Mukherji M, Schofield CJ, Maxwell PH, Pugh CW, Ratcliffe PJ.
Science. 2001

Launch of Concept generation 2,
with multiple models and options
to fit your specific needs



2008

Gas Mixer Q for InvivoO₂



Regulation of Jumonji-domain-containing histone demethylases by hypoxia-inducible factor (HIF)-1alpha.

2008

Pollard PJ, Loenarz C, Mole DR, McDonough MA, Gleadle JM, Schofield CJ, Ratcliffe PJ.
Biochem J. 2008

2011

Ruskinn acquired by
The Baker Company



Environments For Science™

Ruskinn is renowned for its closed cell culture expertise,
which Baker combines with its own aseptic processing and
containment technologies.

2011



2013

[Pan-genomic binding of hypoxia-inducible transcription factors.](#)

Schödel J, Mole DR, Ratcliffe PJ.

Biol Chem. 2013

Media Pre-Conditioning HypoxyCOOL

SCI-tive Dual



2013

2014

[Genetic evidence of a precisely tuned dysregulation in the hypoxia signaling pathway during oncogenesis.](#)

Couvé S, Ladroue C, Laine E, Mahtouk K, Guégan J, Gad S, Le Jeune H, Le Gentil M, Nuel G, Kim WY, Lecomte B, Pagès JC, Collin C, Lasne F, Benusiglio PR, Bressac-de Paillerets B, Feunteun J, Lazar V, Gimenez-Roqueplo AP, Mazure NM, Dessen P, Tchertanov L, Mole DR, Kaelin W, Ratcliffe P, Richard S, Gardie B.

Cancer Res. 2014

2014

2016

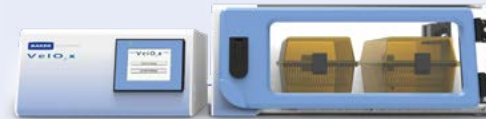
Launch of new InvivoO₂ & Concept



Structural basis for oxygen degradation domain selectivity of the HIF prolyl hydroxylases.

Chowdhury R, Leung IK, Tian YM, Abboud MI, Ge W, Domene C, Cantrelle FX, Landrieu I, Hardy AP, Pugh CW, Ratcliffe PJ, Claridge TD, Schofield CJ.
Nat Commun. 2016

VelO₂x animal chambers are launched



2016

2018

SCI-tive/SCI-tive Dual New Glove Ports/O₂ sensor

New products launched

- CondoCell
- PhO₂x Box
- OxyGenie



2018

2019

[Histone demethylase KDM6A directly senses oxygen to control chromatin and cell fate.](#)

Chakraborty AA, Laukka T, Myllykoski M, Ringel AE, Booker MA, Tolstorukov MY, Meng YJ, Meier SR, Jennings RB, Creech AL, Herbert ZT, McBrayer SK, Olenchock BA, Jaffe JD, Haigis MC, Beroukhim R, Signoretti S, Koivunen P, Kaelin WG Jr.
Science. 2019

Conserved N-terminal cysteine dioxygenases transduce responses to hypoxia in animals and plants

Masson N, Keeley TP...Ratcliffe PJ, Science 2019

[Lack of activity of recombinant HIF prolyl hydroxylases \(PHDs\) on reported non-HIF substrates.](#)

Cockman ME, Lippl K, Tian YM, Pegg HB, Figg WD Jnr, Abboud MI, Heilig R, Fischer R, Myllyharju J, Schofield CJ, Ratcliffe PJ.
Elife. 2019 September

2019



INVIVO₂ (I 400)

www.bakerco.com/products/grow/invivo2

www.bakerco.com/grow



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