7th Annual New York Stem Cell Summit

February 21, 2012

Forward Looking Statements

The matters discussed in this presentation include forward looking statements which are subject to various risks, uncertainties and other factors that could cause actual results to differ materially from the results anticipated. Such risks and uncertainties include but are not limited to the success of BioTime in developing new stem cell products and technologies; results of clinical trials of BioTime products; the ability of BioTime and its licensees to obtain additional FDA and foreign regulatory approval to market BioTime products; competition from products manufactured and sold or being developed by other companies; the price of and demand for BioTime products; and the ability of BioTime to raise the capital needed to finance its current and planned operations. Other risk factors are discussed in BioTime's Securities and Exchange Commission filings.

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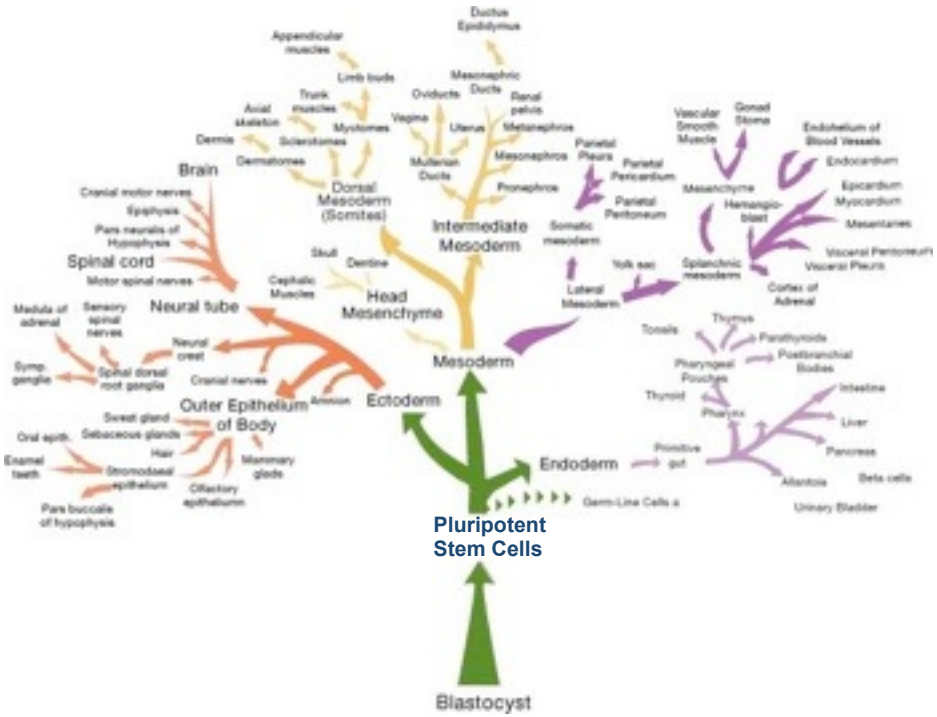
Human Pluripotent Stem Cells



- **GMP Master Cell Bank**
- **Purity**
- **Identity**
- **Histocompatibility**

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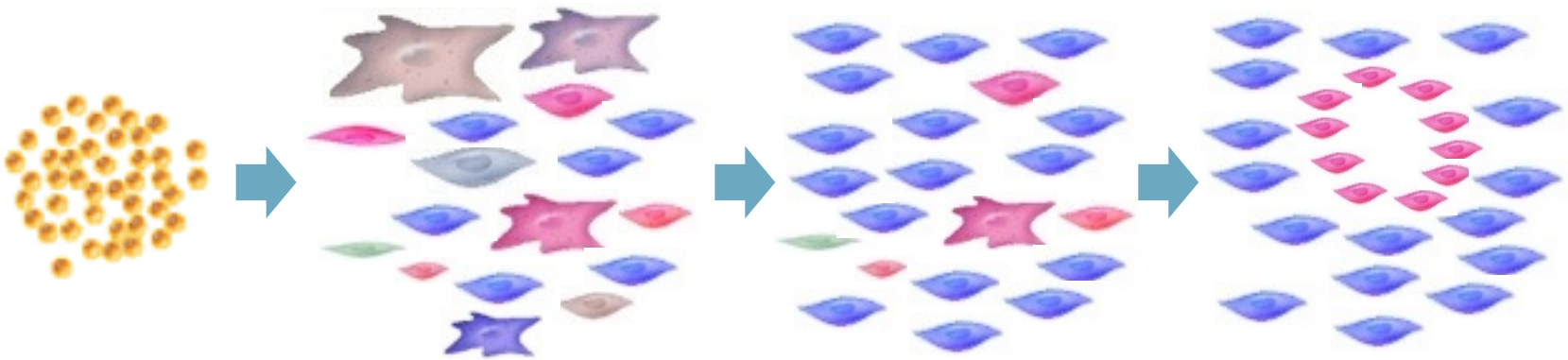
Purity: Manufacturing Technology 1.0



ES Cells

Step 1: Differentiation

Step 2: Purification of desired cell type

Toxicity: Ectopic Cysts Tumors

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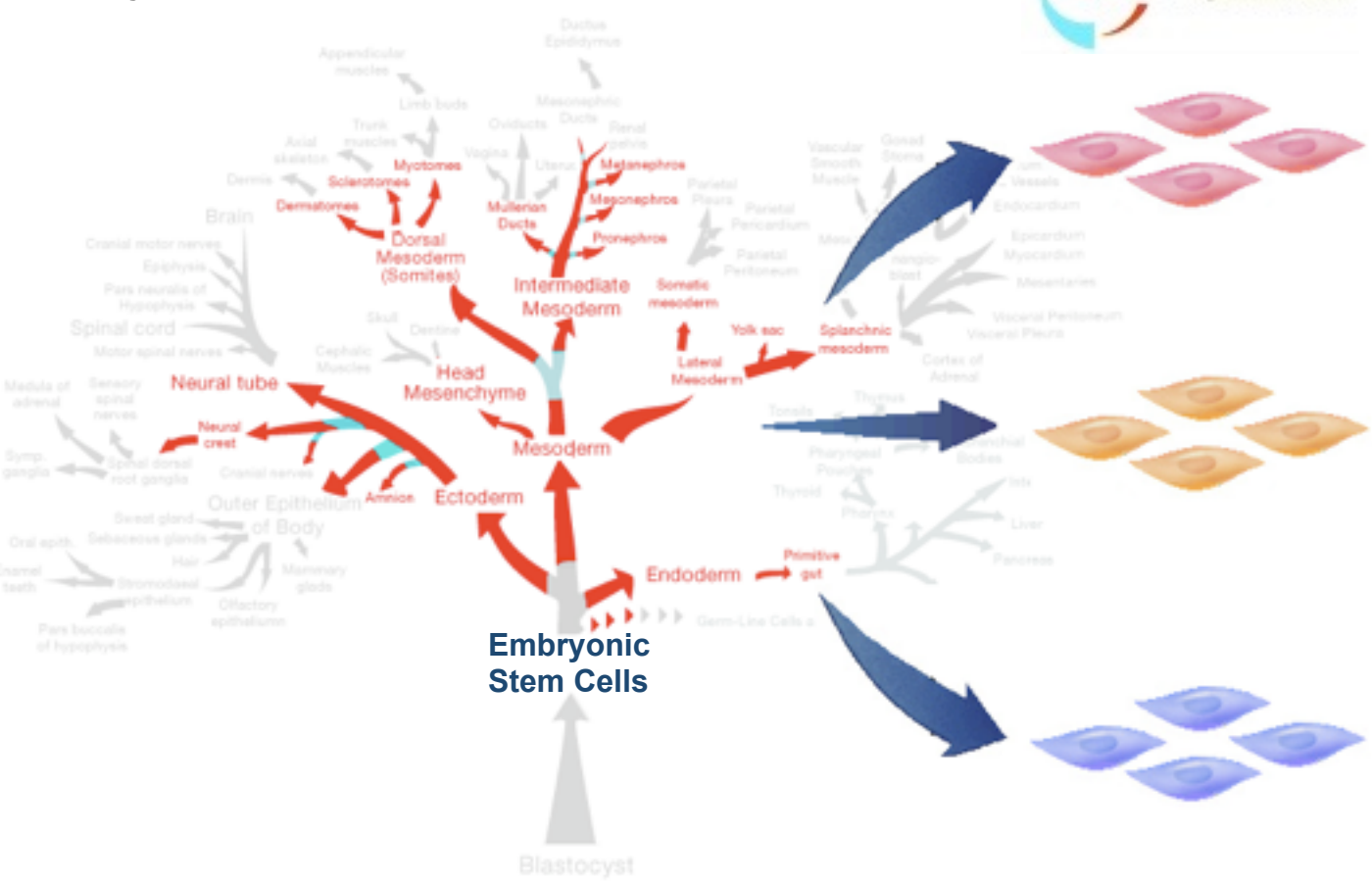
ES Manufacturing Technology 2.0

>200 Cell types isolated

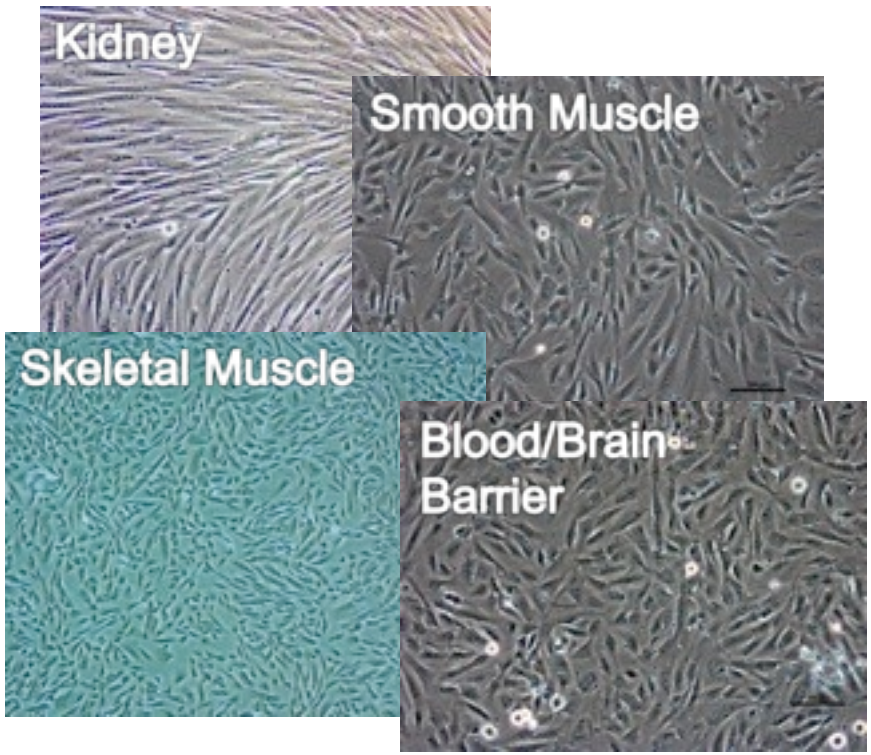


Manufacturing Technology 2.0

>200 Cell types isolated

ACT Cellerate

- **Diversity**
- **Precise identity**
- **Purity**
- **Scalability**
- **Patents pending**



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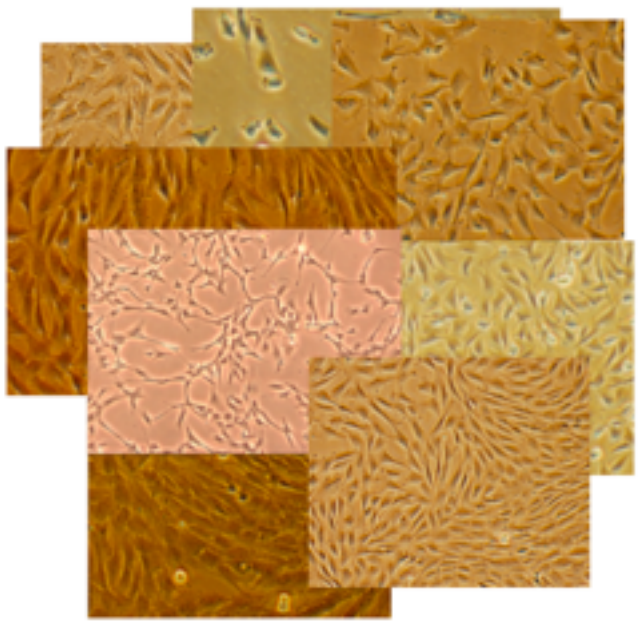
hEP Fate Space Screen



TGFbs → Chondrogenesis

FGFs → Angiogenesis

BMPs → Osteogenesis

RA → Neurogenesis

WNTs → Myogenesis

>100 Scalable Clonal hEP Lines

Array of >500 Differentiation Conditions

Gene Expression

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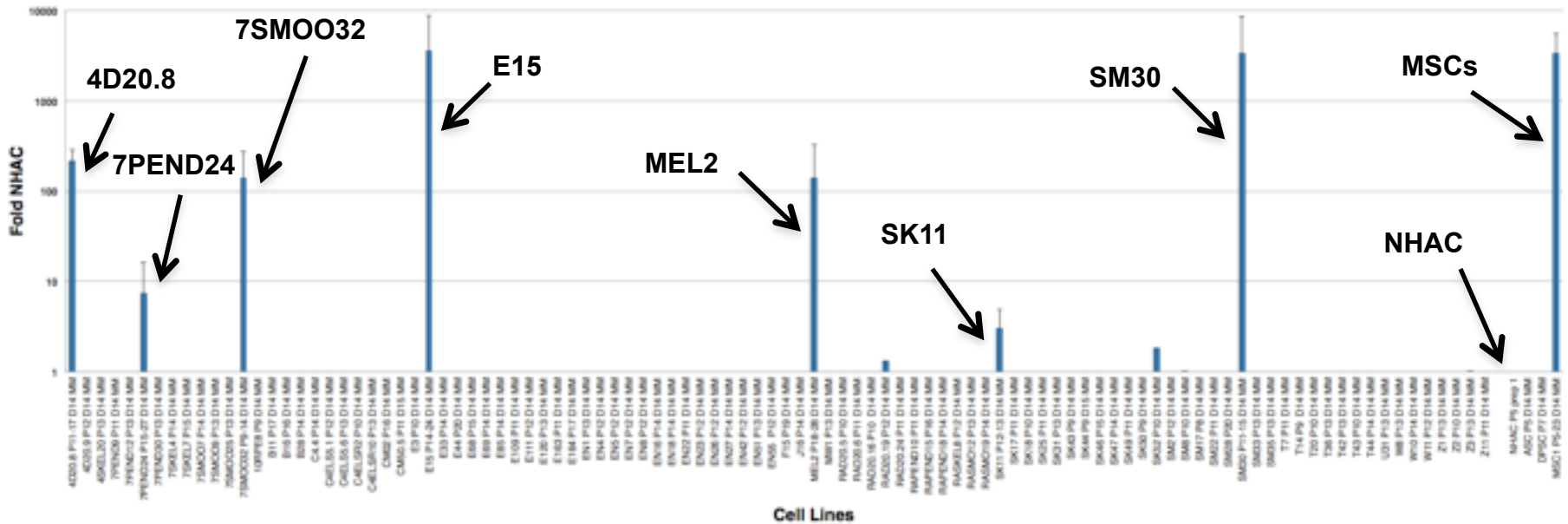
hEP Fate Space Screen

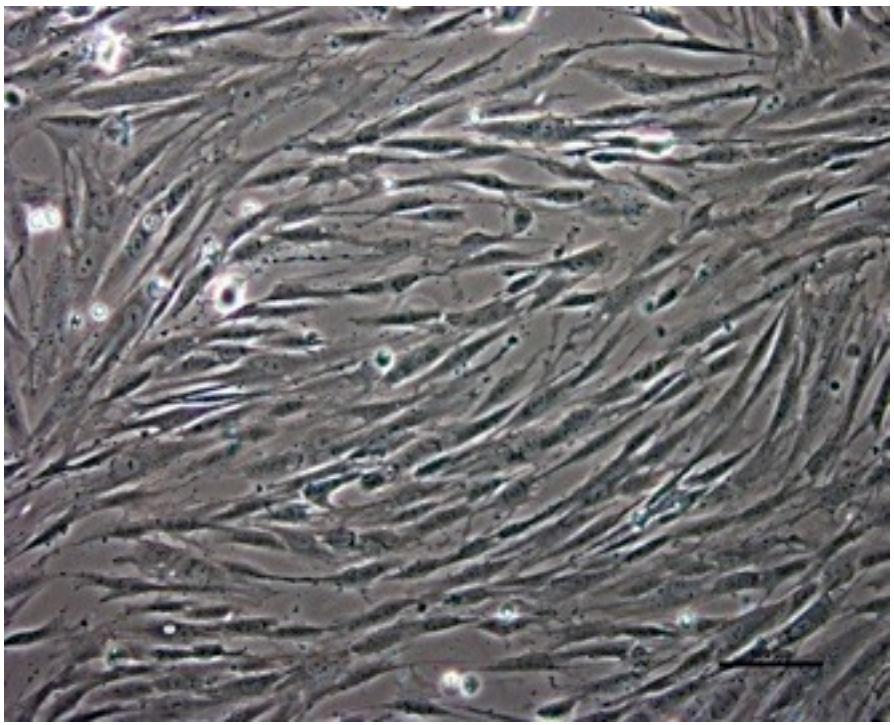
COL2A1 qPCR



ORTHOCYTE CORPORATION

BIOTIME

4D20.8 Clonal EP Line



- ***HOXB2+***
- ***BARX1+***
- ***LHX8+***
- ***FOXF2-***

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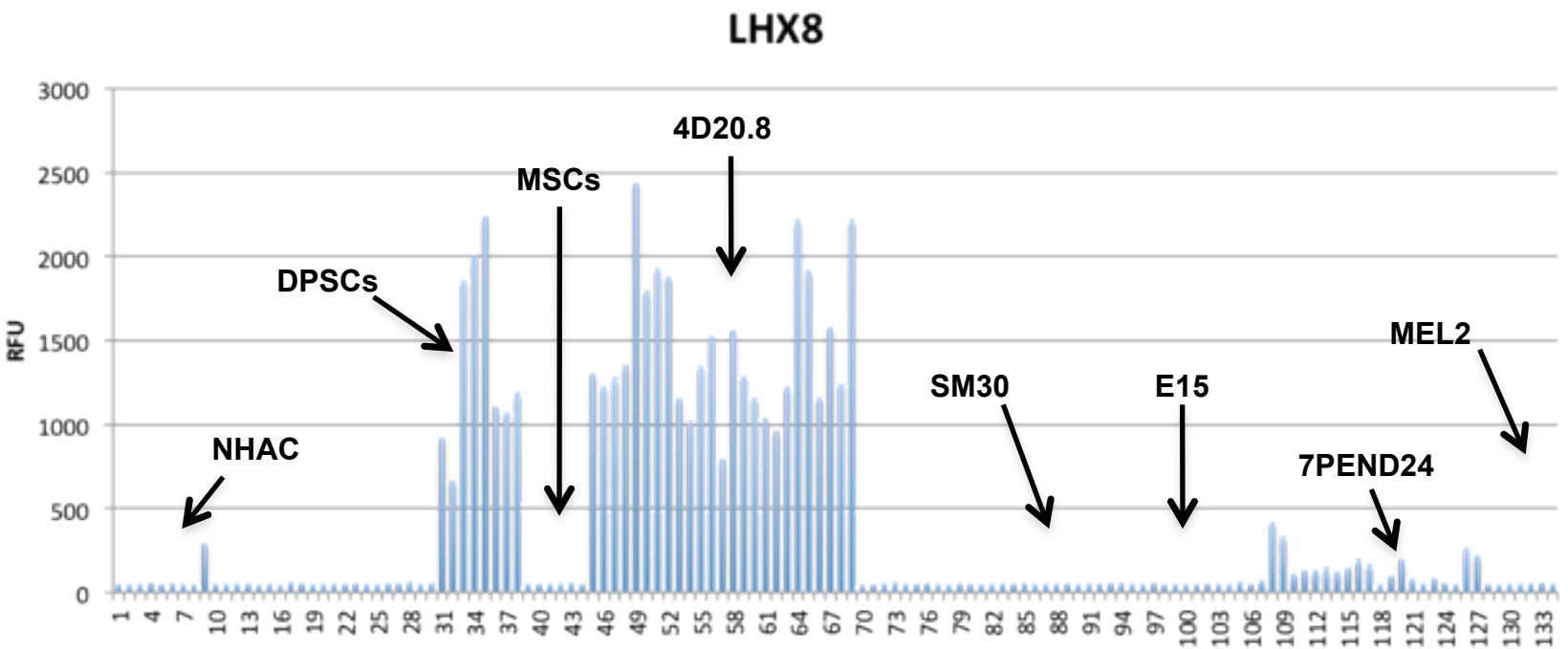
hEP Fate Space Screen



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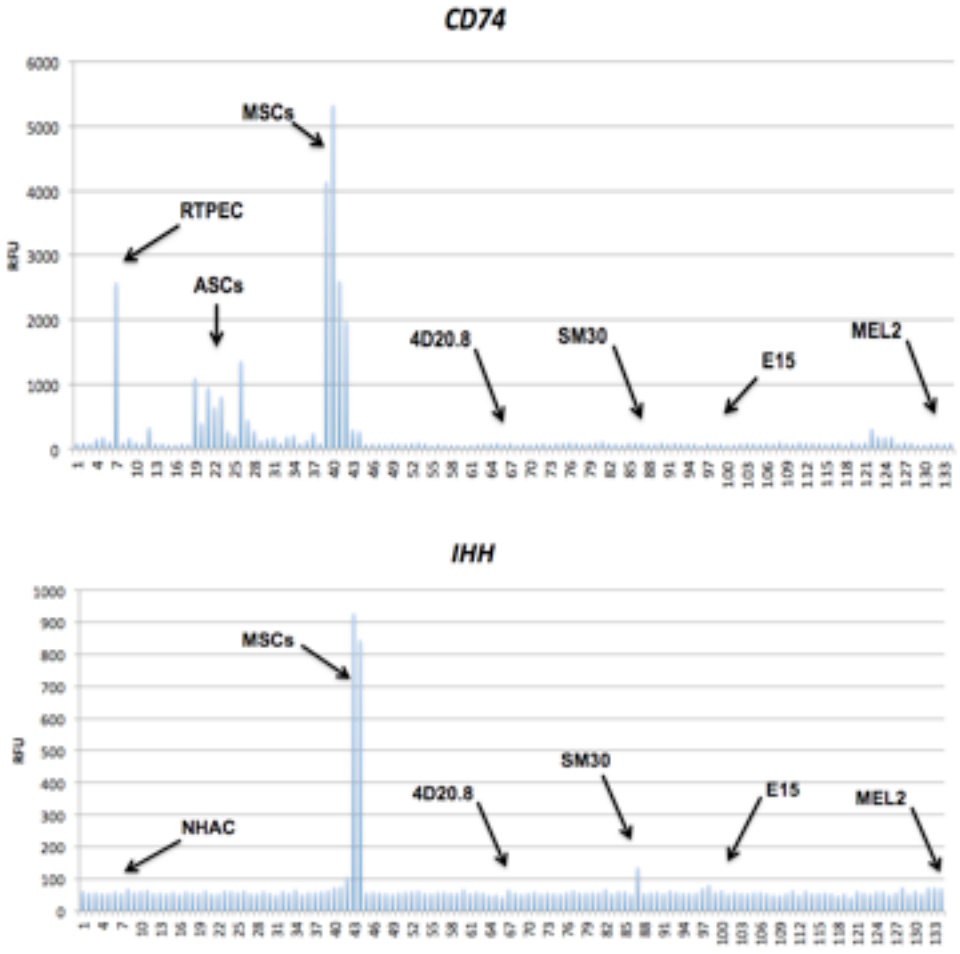
hEP Fate Space Screen



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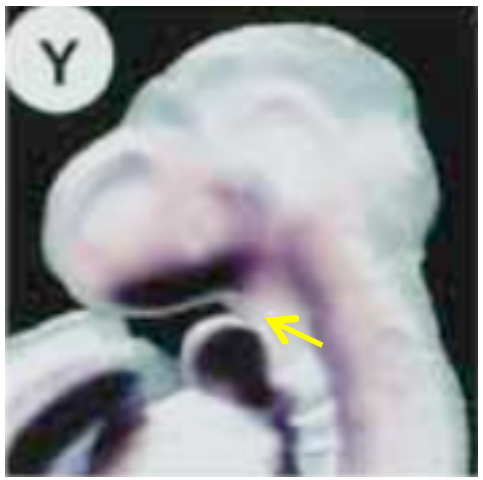
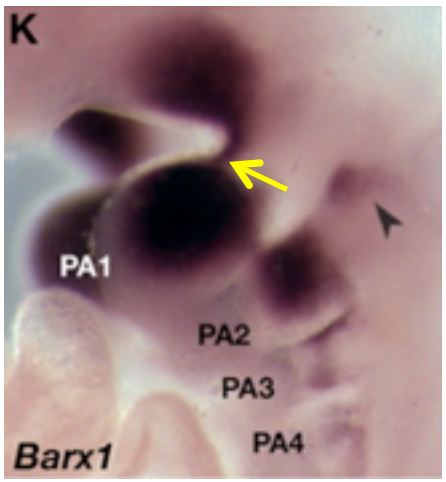
4D20.8 Clonal EP Line

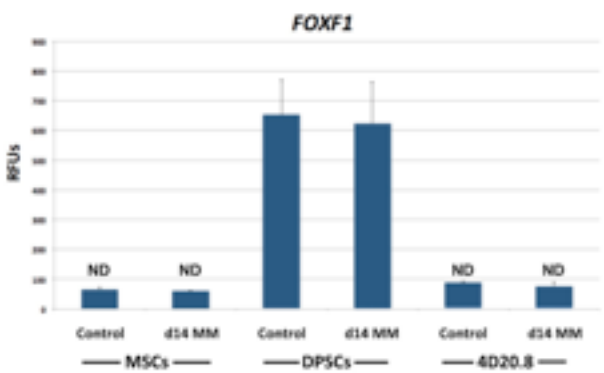
Foxf1

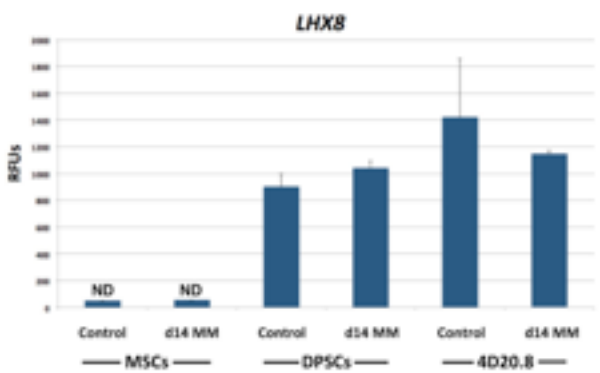


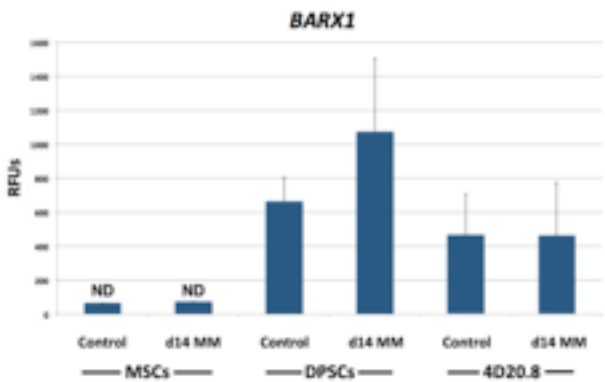
Lhx8

Barx1





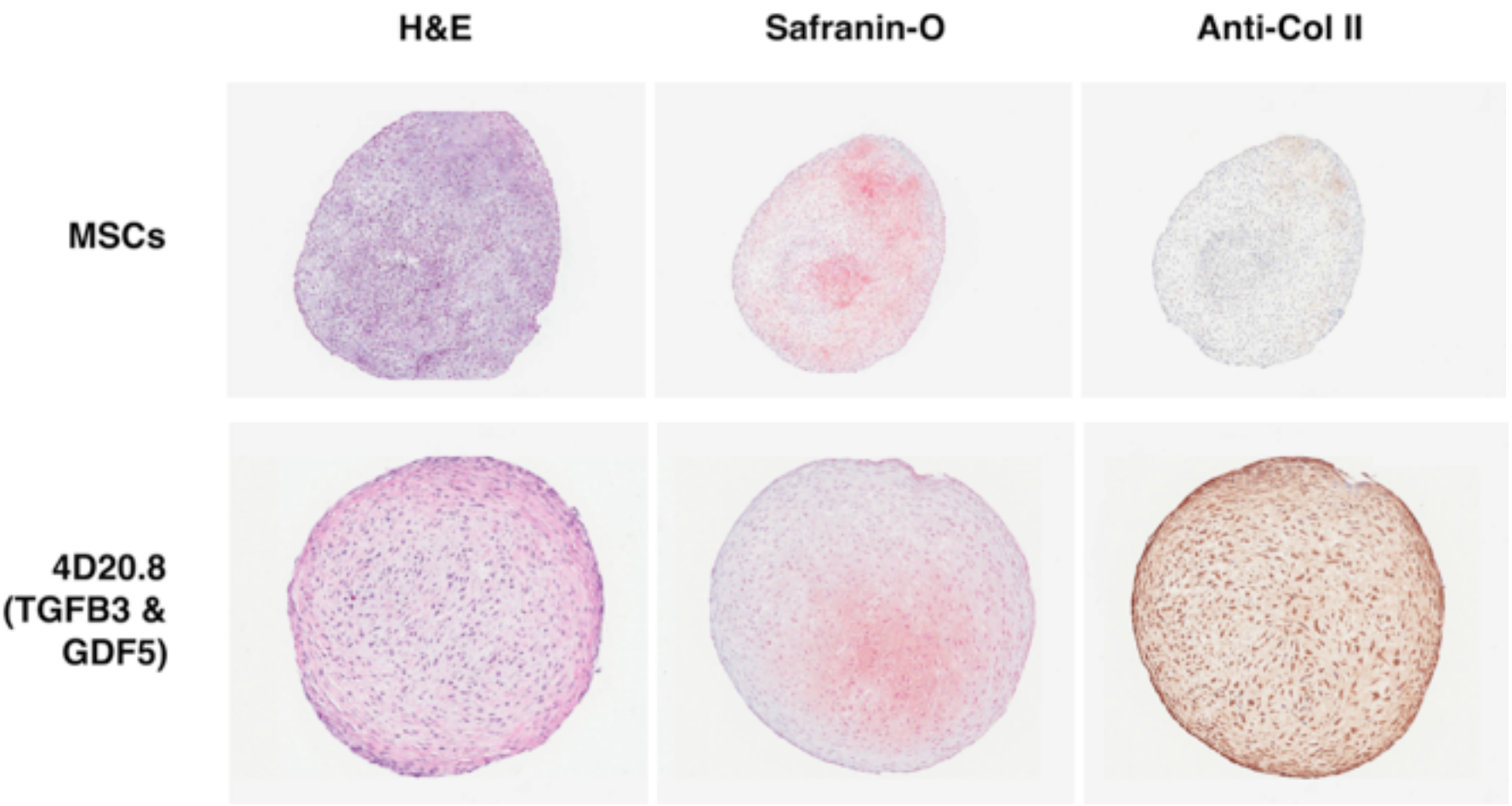




Foxf1 Genes & Dev. 18: 937-951
Lhx8 Science 24:306: 2255-2257
Barx1 Development 136: 637-645

BIOTIME

4D20.8 Clonal EP Line



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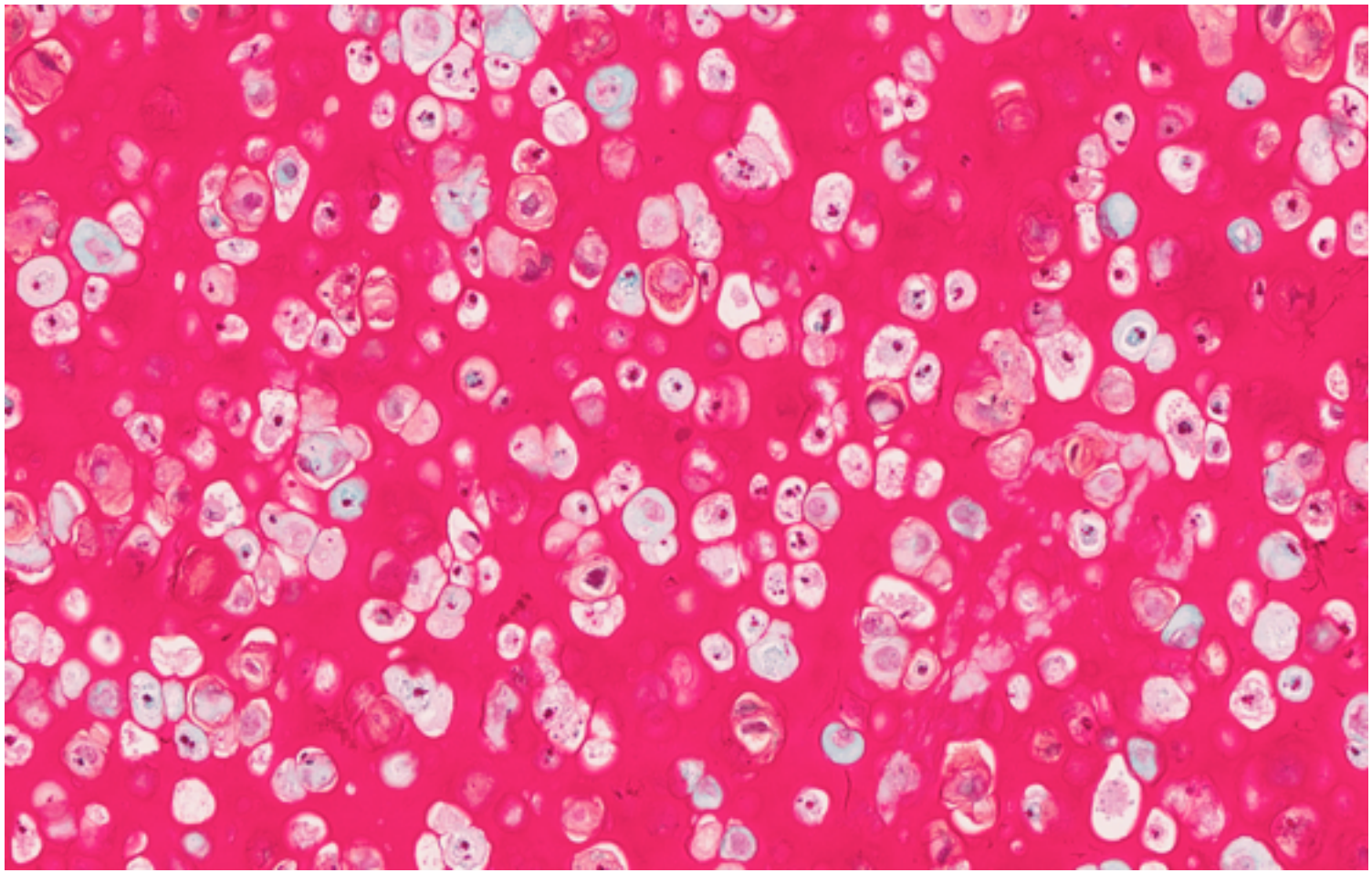
4D20.8 Clonal EP Line D42



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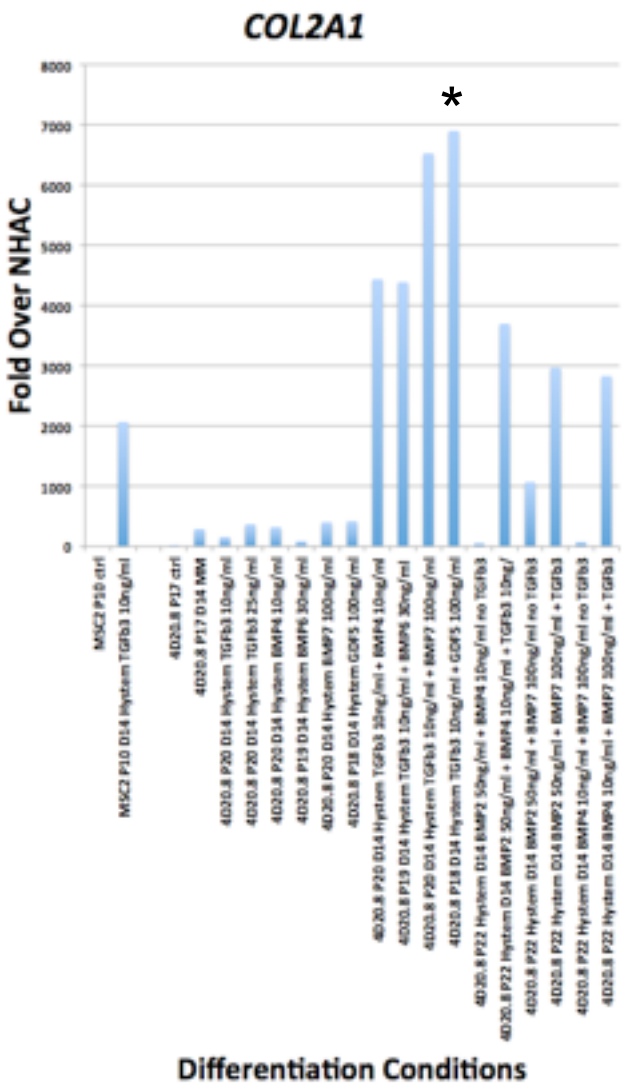
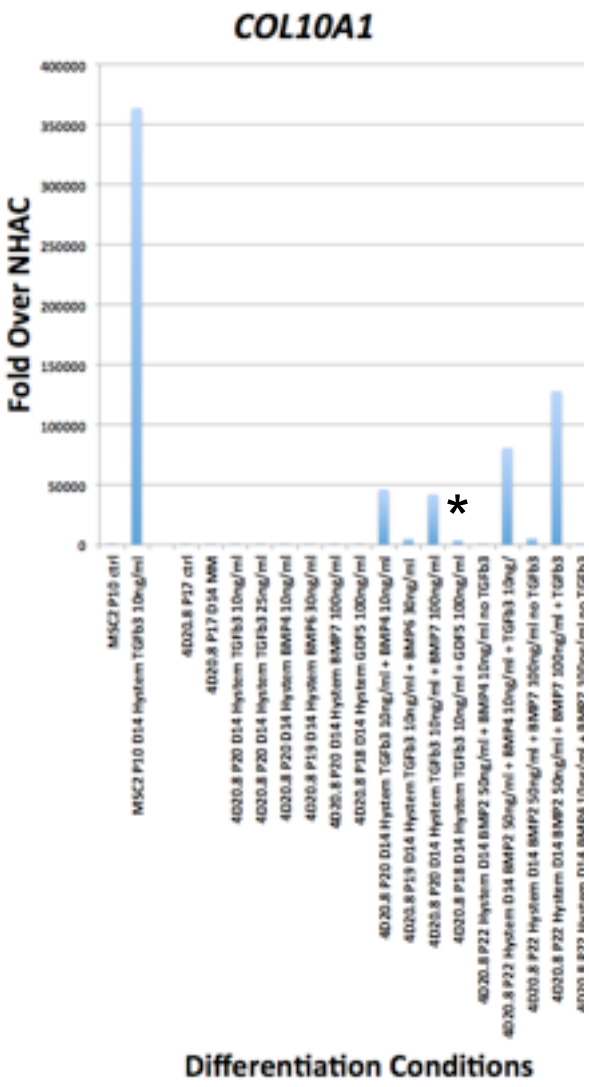
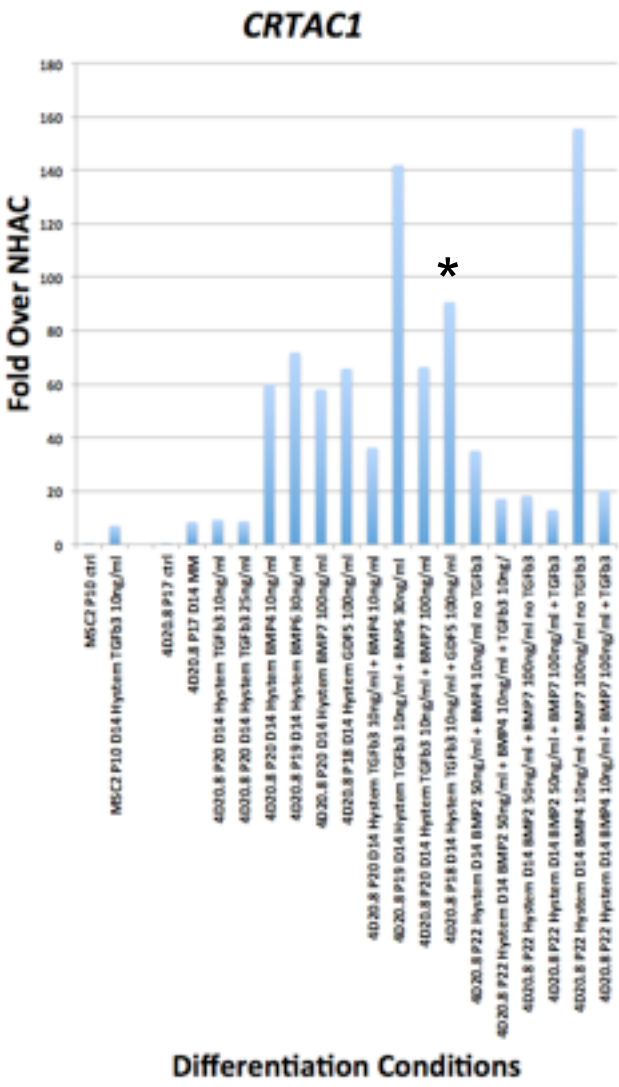
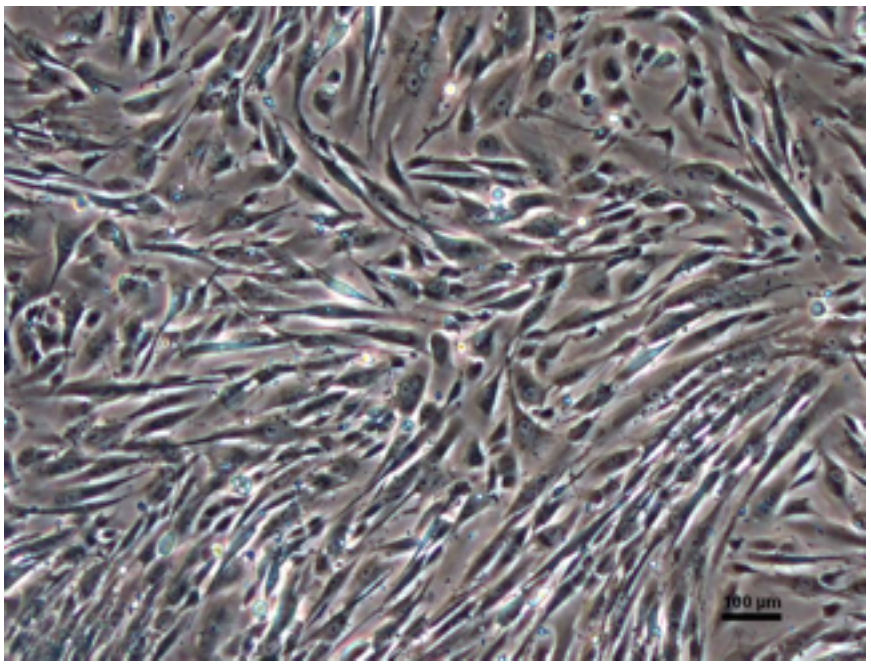
4D20.8 Clonal EP Line







7PEND24 Clonal EP Line



- ***HOX-***
- ***BARX1+***
- ***LHX8+***
- ***FOXF2+***

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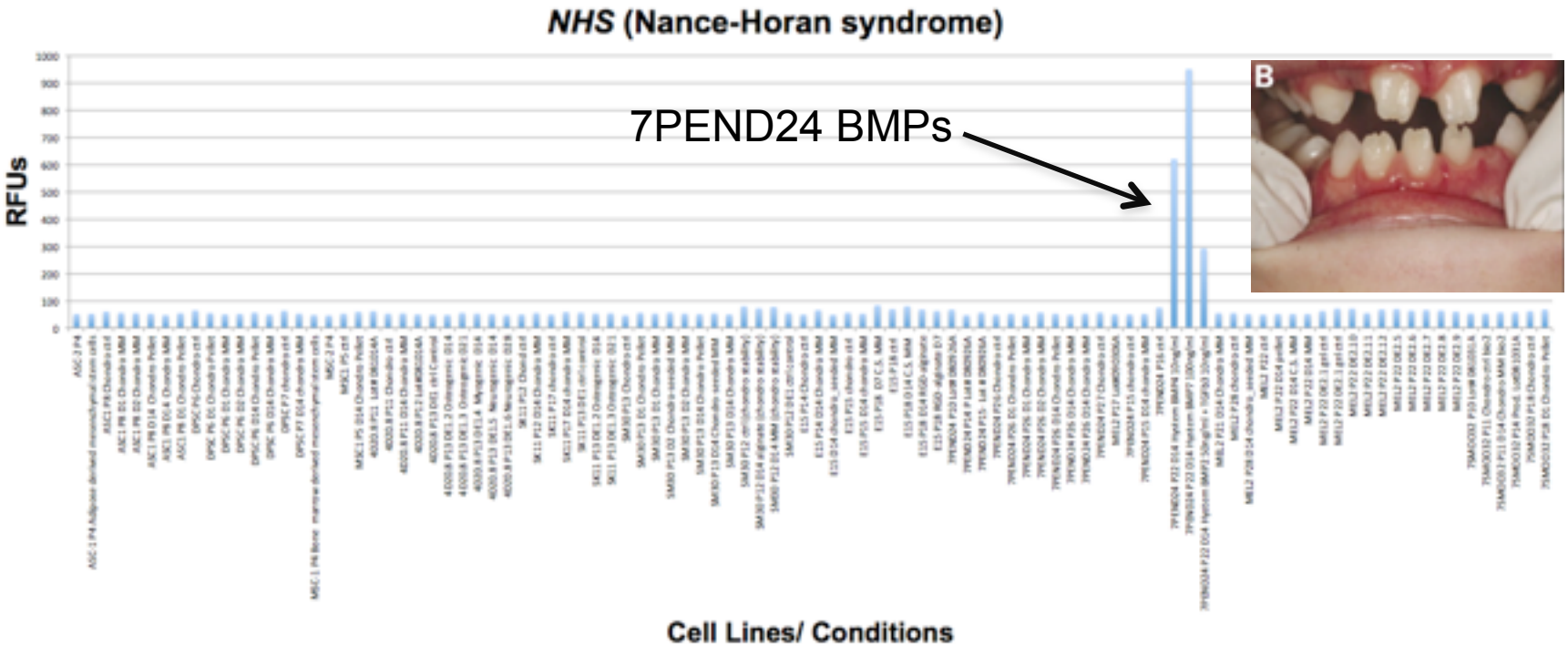
7PEND24 Clonal EP Line



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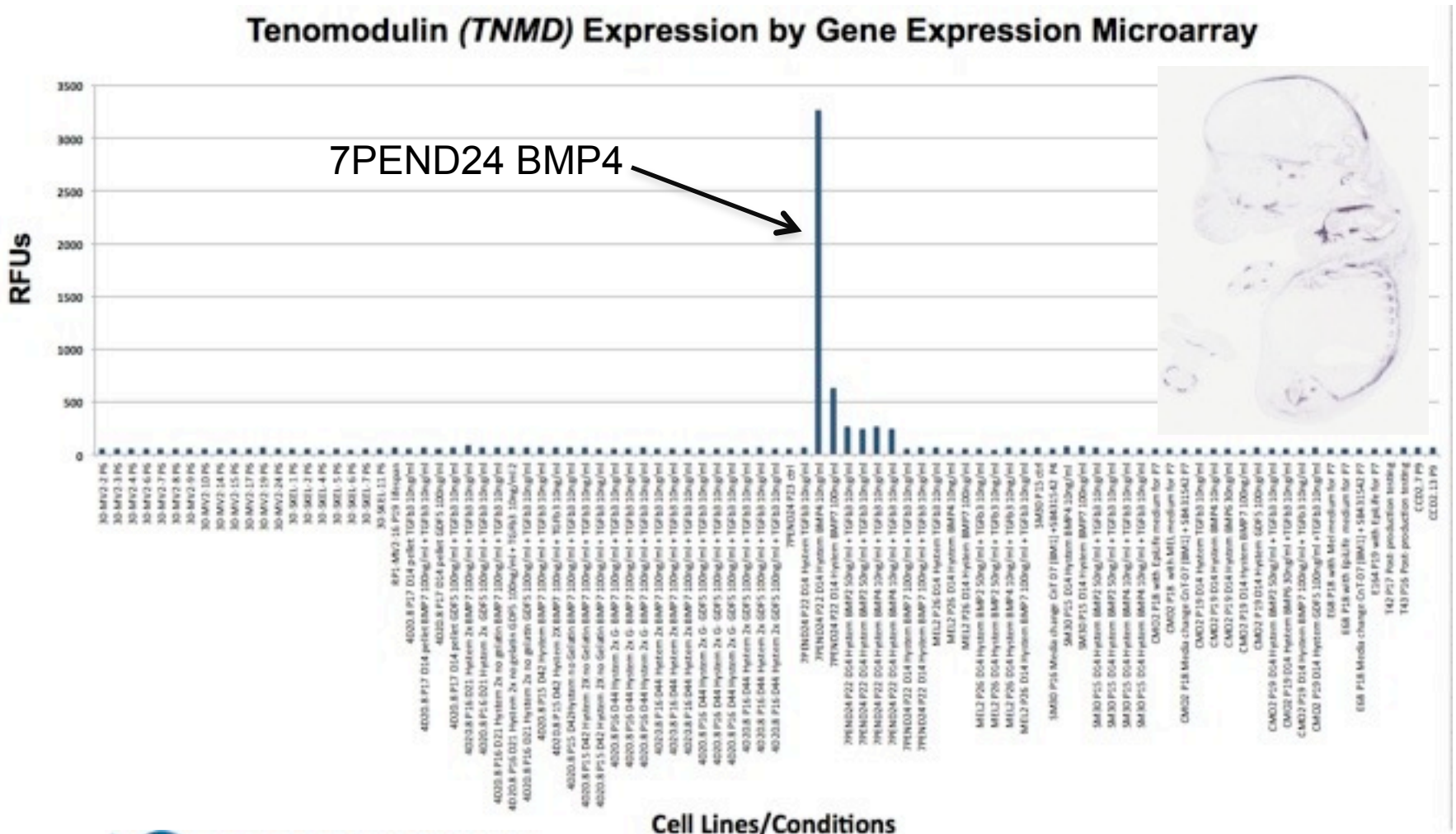
7PEND24 Clonal EP Line



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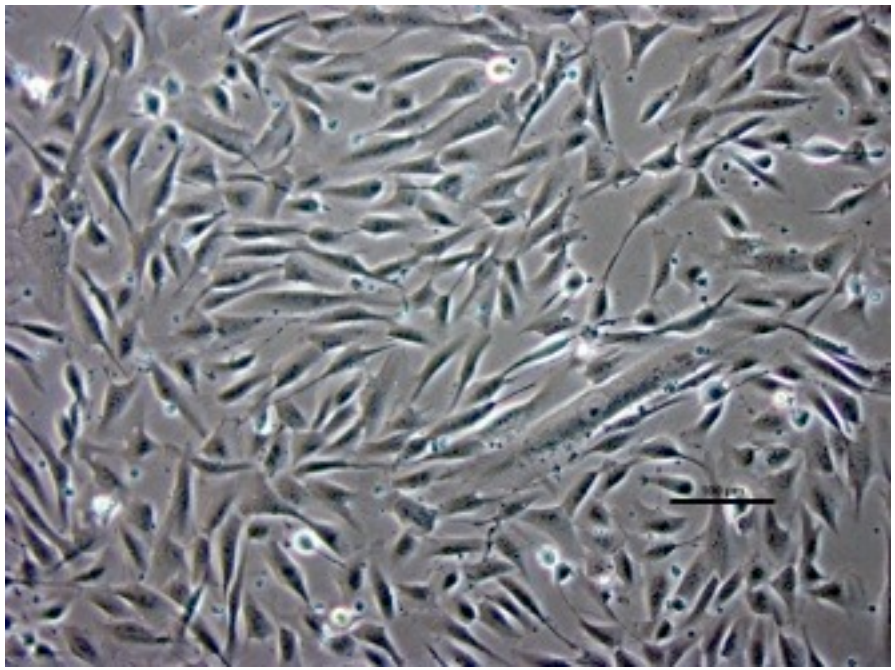
SM30 Clonal EP Line



- ***HOX-***
- ***NNAT-***
- ***ZIC2+***

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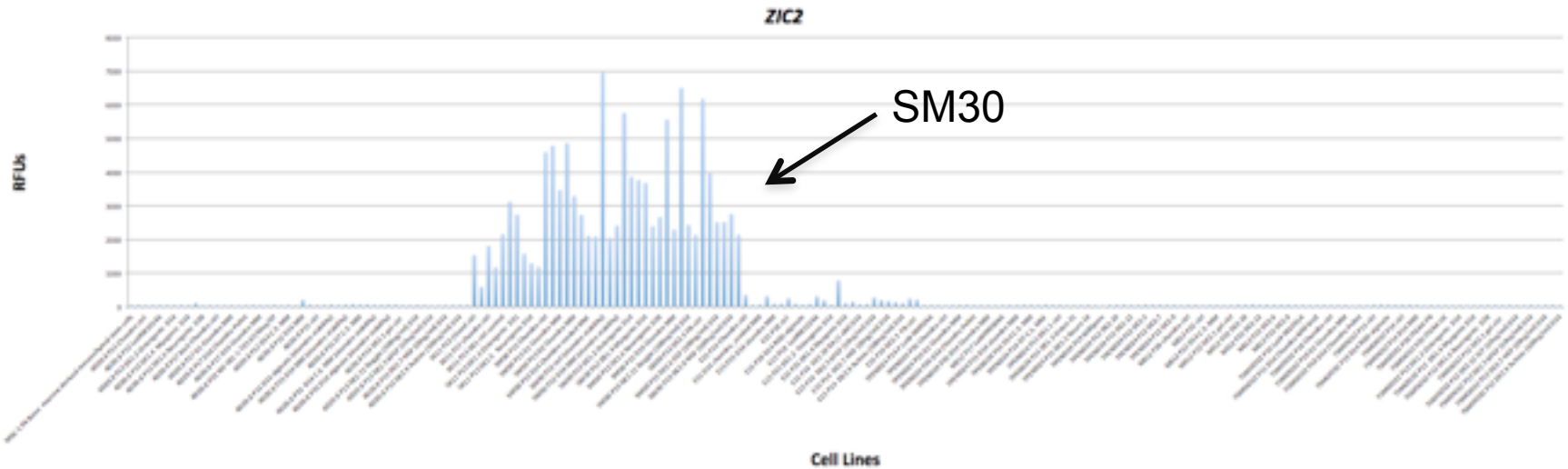
SM30 Clonal EP Line



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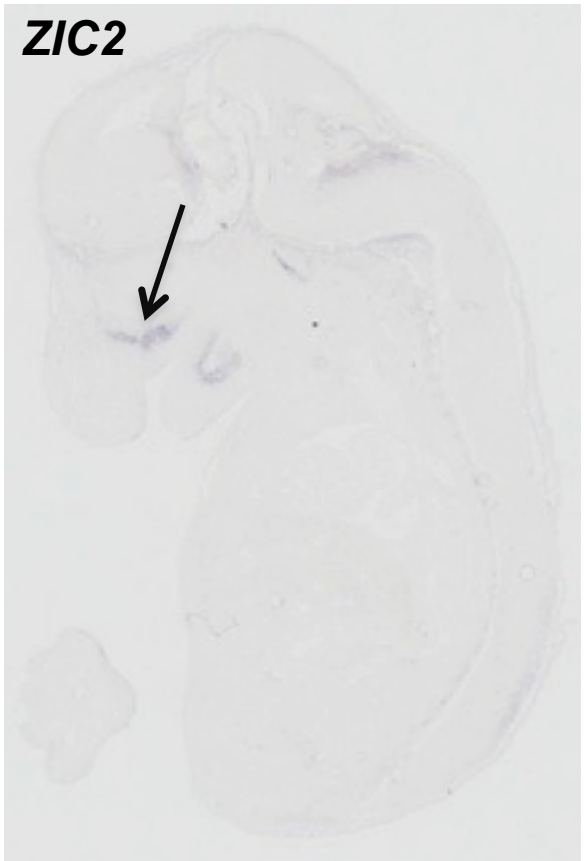
SM30 Clonal EP Line

Dev Biol
182, 299–313 (1997)



Genepaint.org

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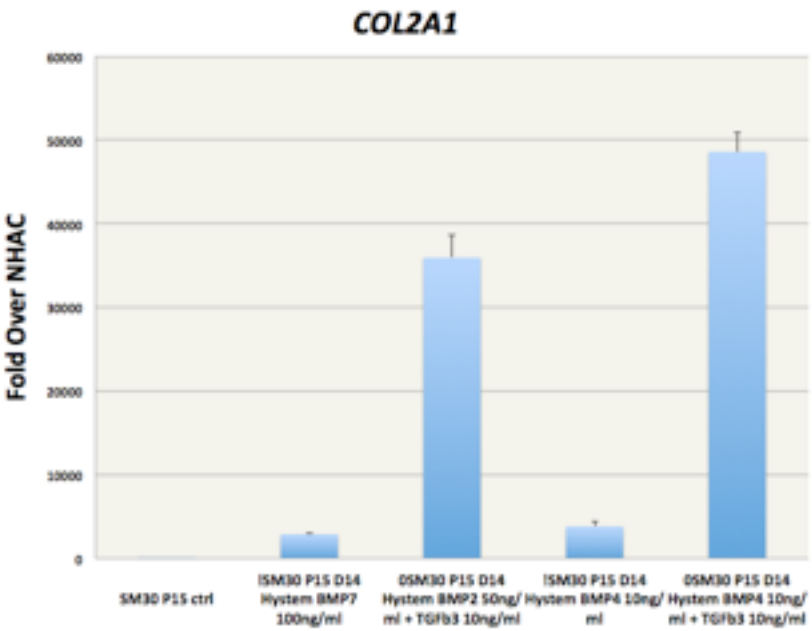
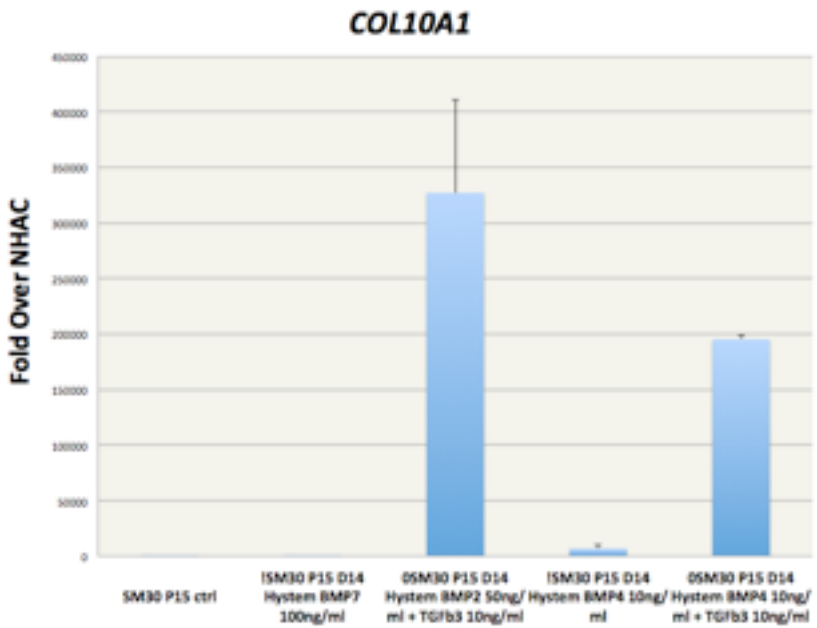
SM30 Clonal EP Line





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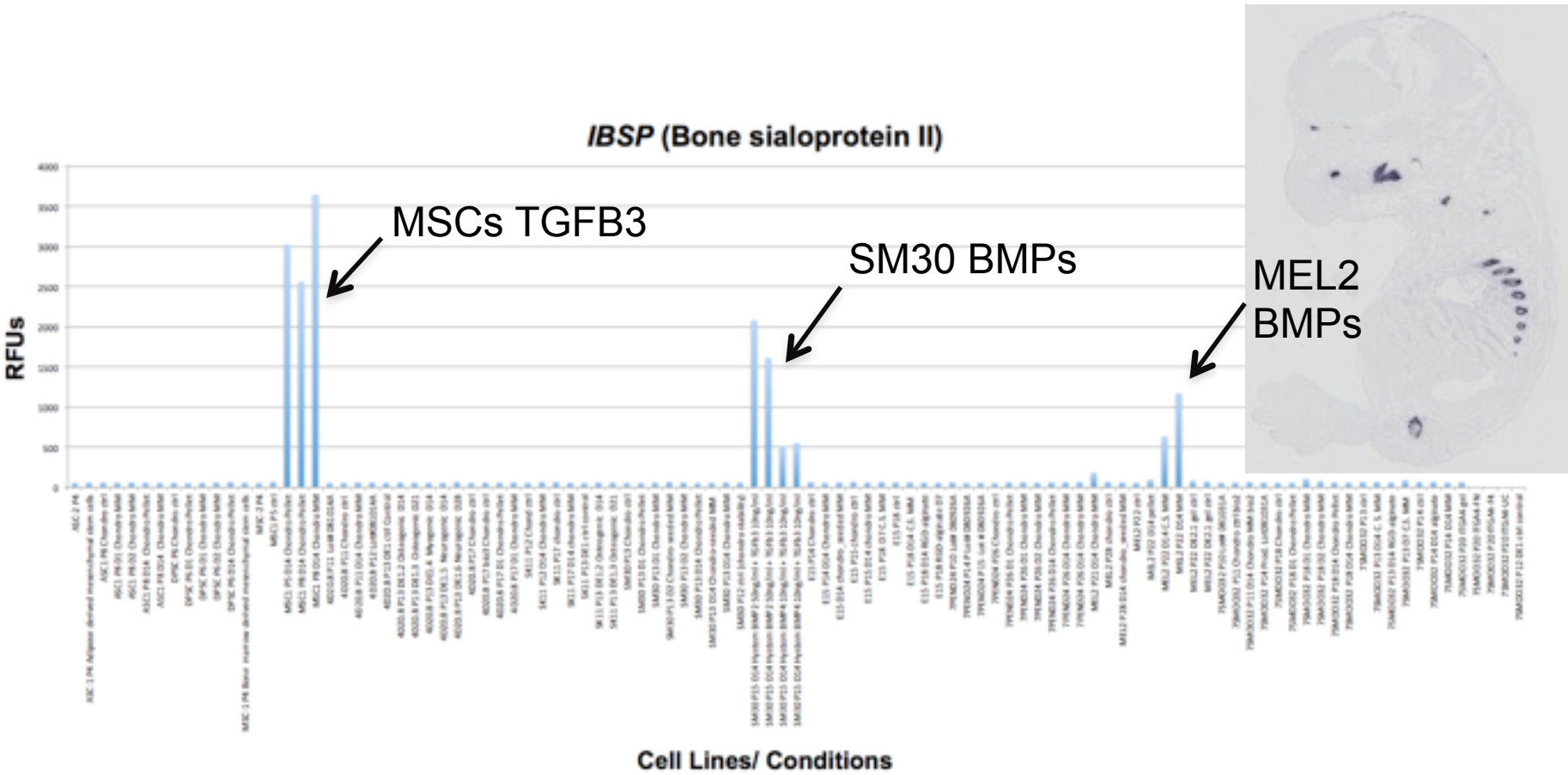
SM30 Clonal EP Line



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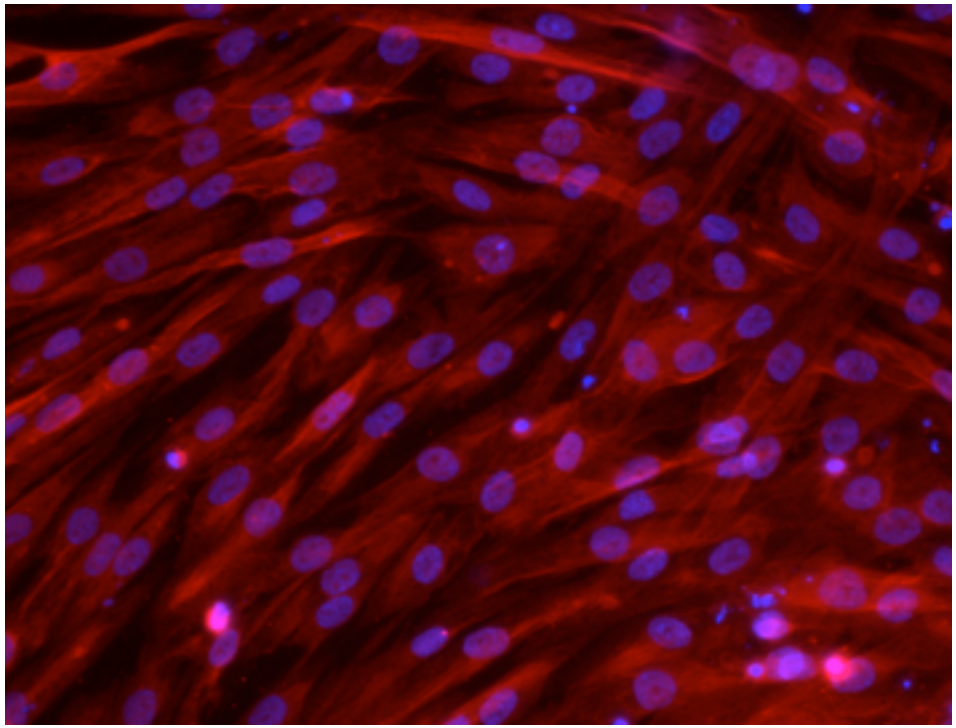
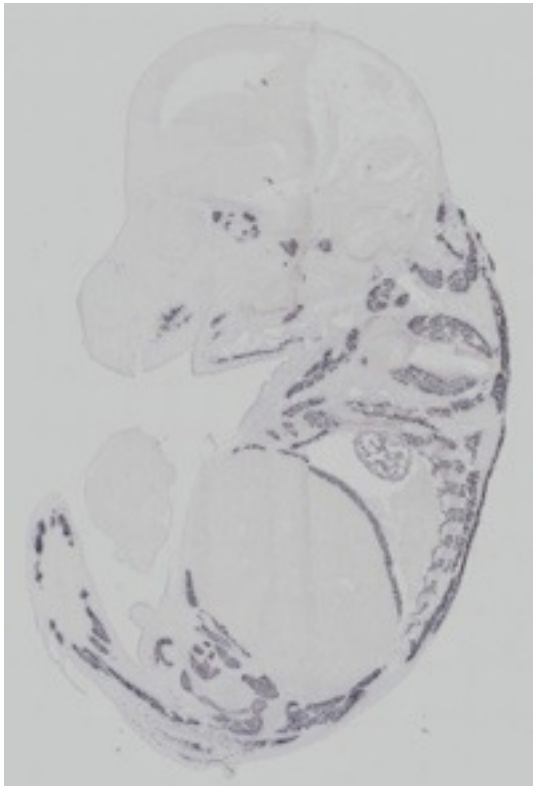
RPI-SKEL8 Clonal Muscle EP Line

200X, MYH3 (SC) 1:20 dilution





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ES Manufacturing Technology 2.0

- Large diversity of site-specific cell types
- Clonal derivation as a purification modality
- Directly scalable, cryopreservable
- Robust culture enables functional assays, and potential use for cell-based therapy in cartilage, bone, tendon, muscle, others.

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NYSE Amex: BTX