



AAS

Association for
Academic Surgery

How to Deliver an Effective Research Presentation

Eugene S. Kim, MD
Associate Professor of Surgery & Pediatrics
Children's Hospital Los Angeles
USC Keck School of Medicine

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@dreskim

#AASFC18

Disclosures

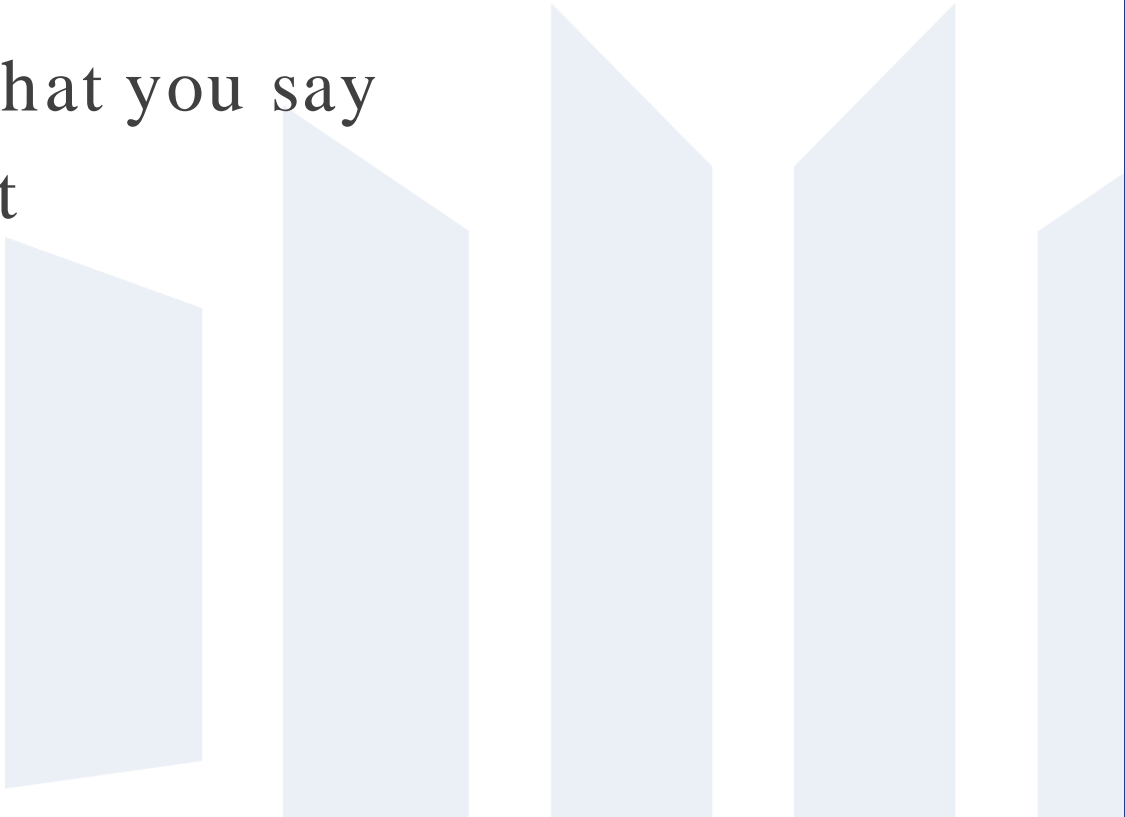
- No disclosures



Outline

- Important factors for giving an effective presentation
- Examples of what is good and what is not so good
- Helpful tips and advice

Critical aspects of a presentation

- The content of what you say
 - How you show it
 - How you say it
- 

Structure of presentation

- Background – what's the problem
- Hypothesis – how can we fix the problem
- Methods – what techniques did you use
- Results
- Conclusions

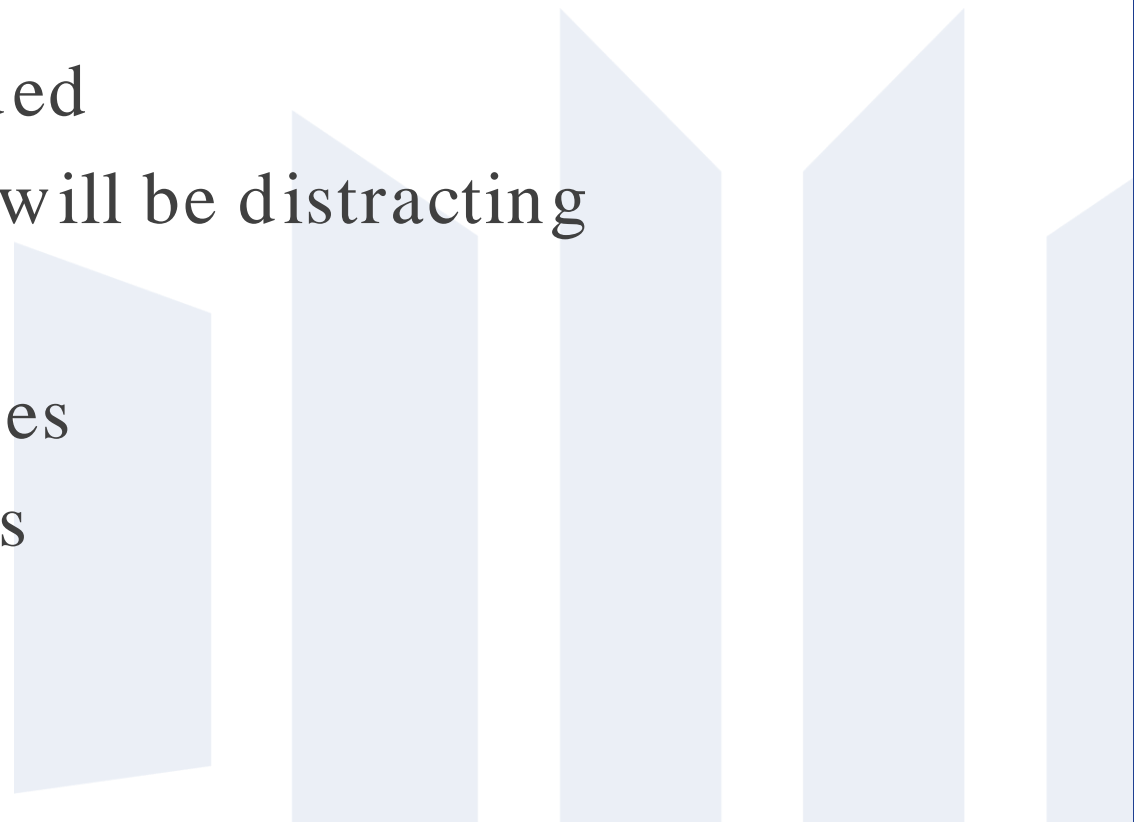
Background

- What's the problem?
- How is the current question related to the problem?
- Assume your audience knows nothing about your topic
- Distill and be brief

Hypothesis

- Flows from the background
 - How will you address your problem?
 - What do you think will happen?

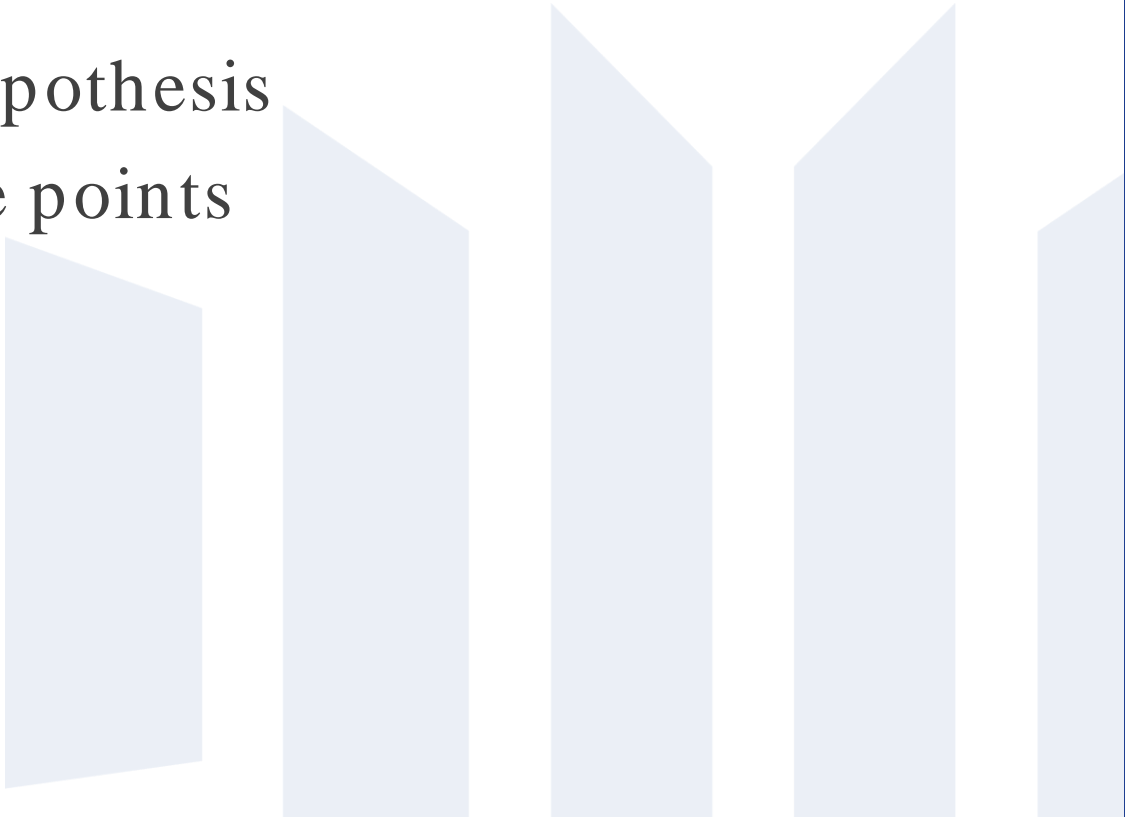
Methods

- Say what is needed
 - Excessive detail will be distracting
 - Numbers
 - Statistical analyses
 - Figures - pictures
- 

Results

- Clear figures with clear legends
- Clear stats
- Clear tables in large font
- Highlight interesting data
- Keep it simple

Conclusions

- Circle back to hypothesis
 - Clear and simple points
 - Future direction
- 

Slide Content

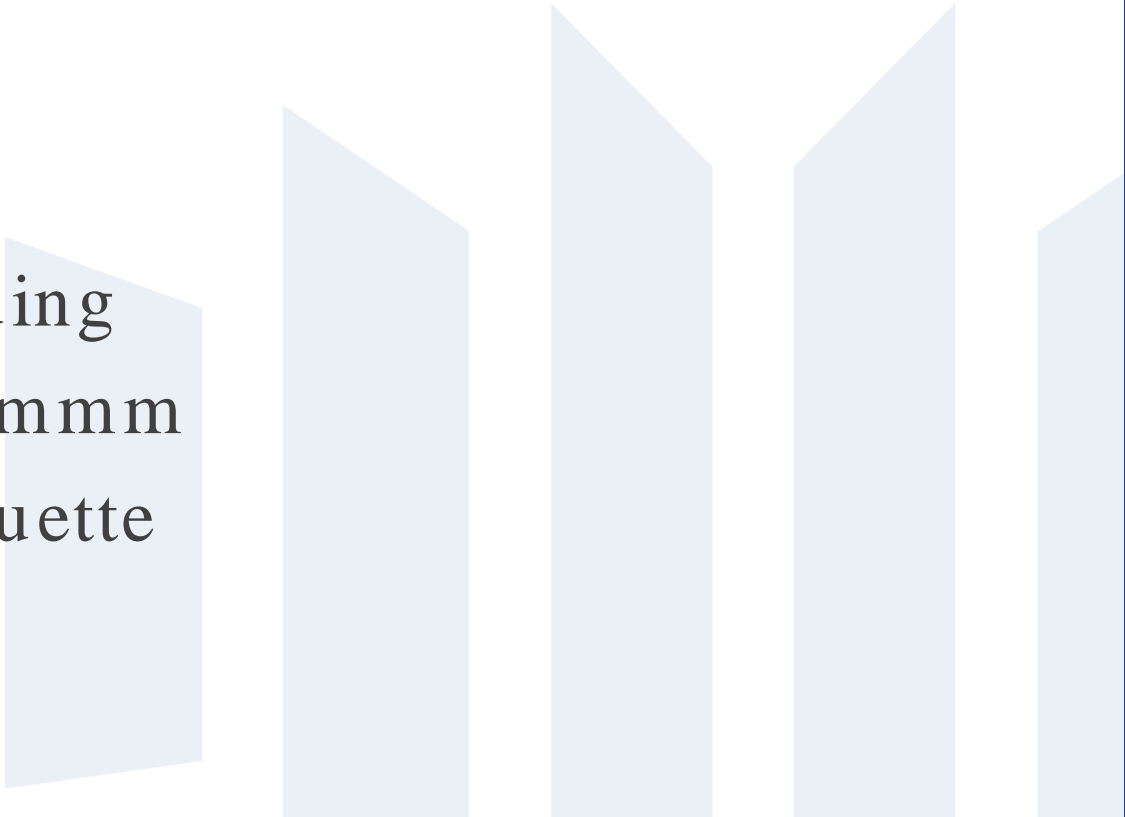
- Font – size, color
- Amount of content
- Level of detail
- Animation – augment, not distract

THIS

IS

DISTRACTING

Presentation style

- Posture
 - Eye contact
 - Speaking vs reading
 - Avoid the uuummmm
 - Microphone etiquette
- 

Posture

- Stand up tall
- Hands on the podium
 - Careful with gesticulations
- Don't move about

Eye contact

- Get your head up and out of the notes
- Look at your audience members
- Look back and forth at your data to keep them focused
- Engage!

Speak to your audience

- Do not read slides
 - Deliver bullet points while you augment with your words
- 

- Do not follow words with laser pointer
- When using a pointer, use two hands
 - Move slowly and purposefully to show points of interest

Constraints

- Time
- Amount of information
- Complexity of information
- Attention span of audience
- Knowledge base of your audience

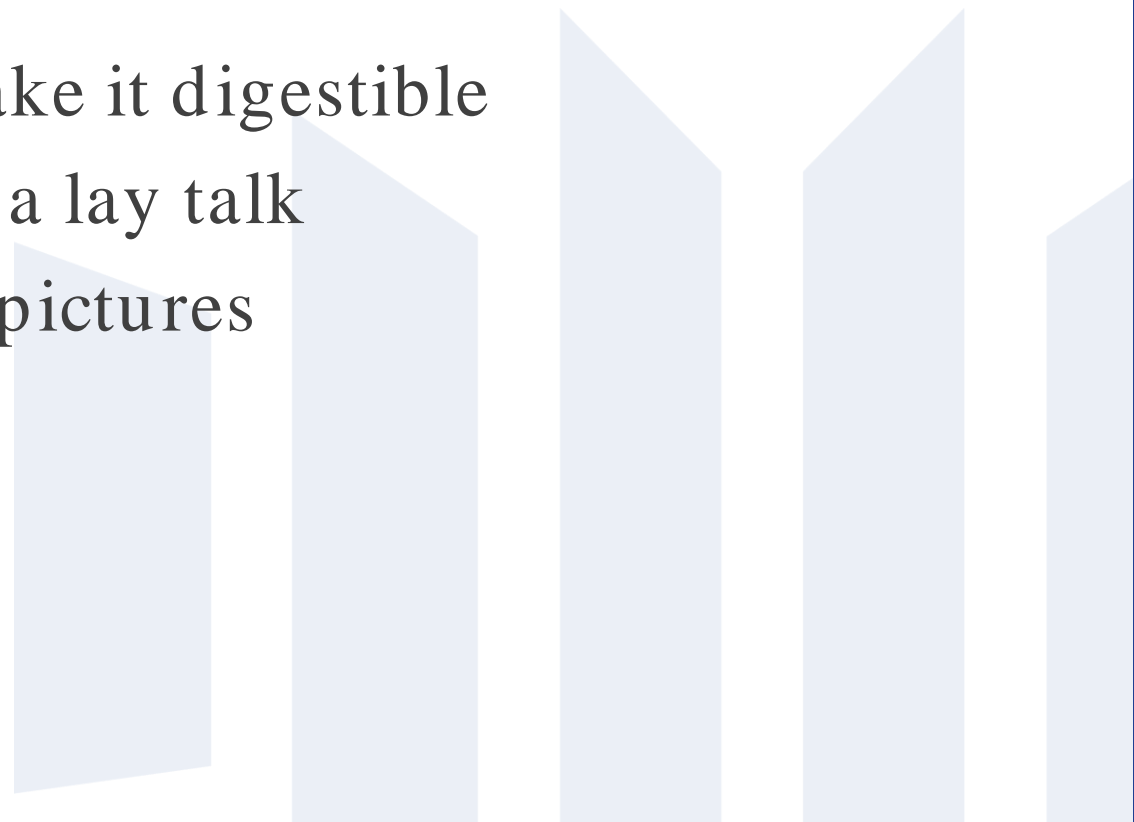
Time

- Be respectful of the time limit!
- Practice, practice, practice

Amount of information

- If short on time, cut the data
- Better to present less data clearly, than a lot of data poorly
- Distill, be concise, focus on the important points


Complexity of information

- Your job is to make it digestible
 - Make every talk a lay talk
 - Use figures and pictures
- 

Attention span

- Keep an eye on your audience
- Make clear critical points – take home messages
- Re-focus attention

Engaging audience

- Make them listen to you
 - Tell a story
 - Inflection, timing
 - Keep your audience happy
- 

Practical exam



YES



NO

Unmatched cohort analysis

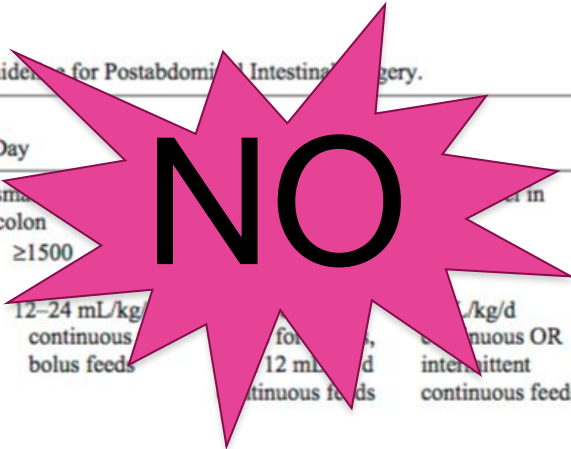
Demographics, Outcomes, and Adverse Events	Preimplementation (n = 93)	Postimplementation (n = 70)	P Value
<i>Baseline demographics</i>			
Male, No. (%)	51 (55)	33 (47)	.35
Diagnosis, No. (%)			
NEC	49	36 (51)	.88
Gastroschisis		21 (30)	.74
Atresia		13 (19)	.38
Other		0 (0)	1.00
Gestational age, wk ^a		33.5 (26, 36)	.66
Birth weight, g ^a		1786.5 (840, 2602)	.59
RSB percent estimated, No. (%)			
>40%		55 (79)	.58
20%-40%		9 (13)	1.00
<20%		5 (7)	.78
<i>Outcomes</i>			
Time to full feeds ^a	18 (20)	15 (10, 38)	.70
Time to start PO after reanastomosis ^{a,b}	10 (11)	9.5 (6, 13)	.04
Days of PN ^a	64 (34, 110)	52 (29, 94)	.27
LOS after definitive surgery ^a	40 (22, 99)	38 (21, 63)	.52
Highest total bilirubin ^{a,b}	6.7 (2.6, 10)	3.9 (1.0, 6.1)	.0005
Total bilirubin at discharge ^{a,b}	2.1 (0.5, 4.1)	0.7 (0.4, 3.0)	.02
Percent time of hospital stay with elevated total bilirubin ^{a,b}	50 (0, 91)	24 (0, 70)	.03
Use of fish oil, No. (%) ^b	22 (24)	1 (1)	<.001
Use of phenobarbital, n (%) ^b	19 (20)	6 (9)	.05
Use of ursodeoxycholine, No. (%)	35 (38)	21 (30)	.32
<i>In-hospital adverse events and breast milk use, No. (%)</i>			
In-hospital mortality	3 (3)	0 (0)	.26
PNALD	54 (58)	32 (46)	.15
Postsurgical NEC	4 (4)	4 (6)	.73
CLABSI	23 (25)	16 (23)	.85
Predominant use of BM during advancement to 50% of goal ^b	37 (40)	48 (69)	<.0001

NO

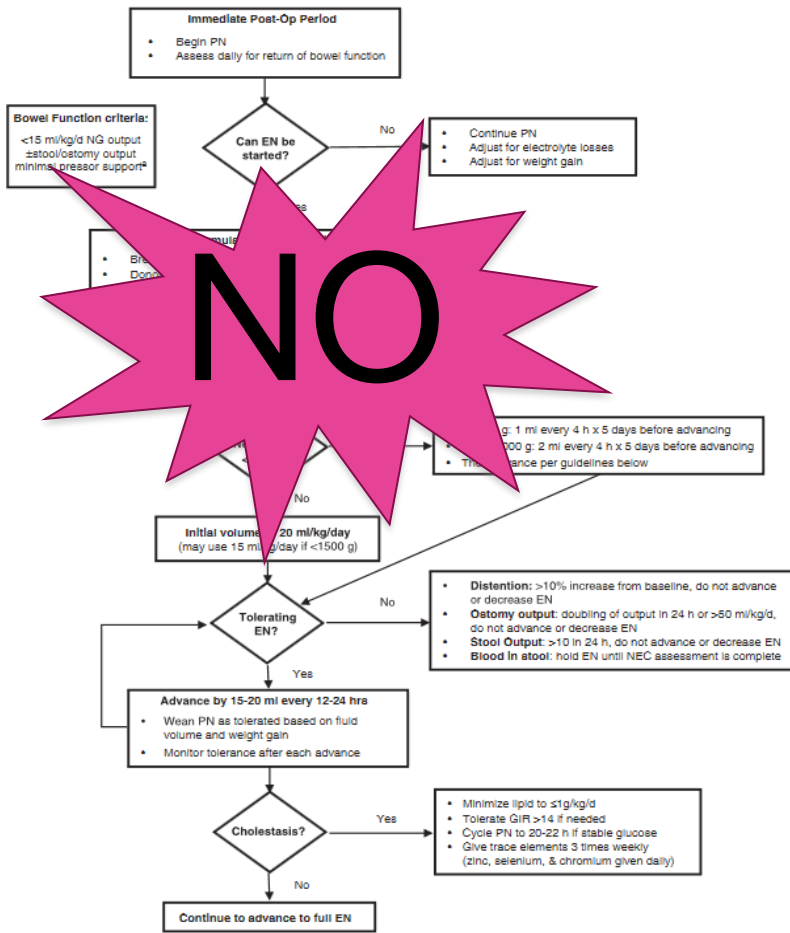
Standardization of feeding after surgery

Table 1. Infant Enteral Feeding Guidelines for Postabdominal Intestinal Surgery.

Patient Type and Feeding	1 Day		7 Days	
	Residual small bowel ^a	>40% remaining small bowel in continuity with colon	<40% remaining small bowel in continuity with colon	<20% remaining small bowel in continuity with colon
Patient weight, g	<1500	≥1500	<1500	≥1500
Initial enteral feeds ^b	12 mL/kg/d continuous feeds	12–24 mL/kg/d continuous or bolus feeds	12 mL/kg/d for 24 hours, then 12 mL/kg/d intermittent or continuous feeds	1 mL every 3 hours for 7 days, then 12 mL/kg/d continuous OR intermittent continuous feeds
Feeding increases	Increase by 12 mL/kg/d every 48 hours	Increase by 24 mL/kg/d every 24 hours	Increase by 12 mL/kg/d every 3 days	Increase by 12 mL/kg/d every 7 days
Feeding intolerance ^c	Evaluate every 3 hours. If intolerance, hold feeds for 12 hours and reassess.		Evaluate every 3 hours. If intolerance, hold feeds for 12 hours and reassess.	

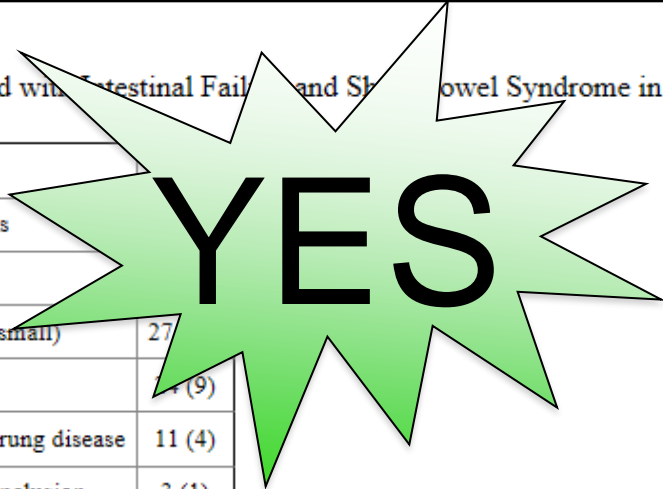


Feeding protocols in IF patients



Diagnoses Associated with Intestinal Failure and Short Bowel Syndrome in Infants (N=272)

DIAGNOSIS	
Necrotizing enterocolitis	
Gastroschisis	
Intestinal atresia (large/small)	27
Volvulus	14 (9)
Long segment Hirschsprung disease	11 (4)
Tufting or Microvillus inclusion	3 (1)
Other single diagnoses	14 (5)
Unknown	1
Multiple single diagnoses	77 (28)



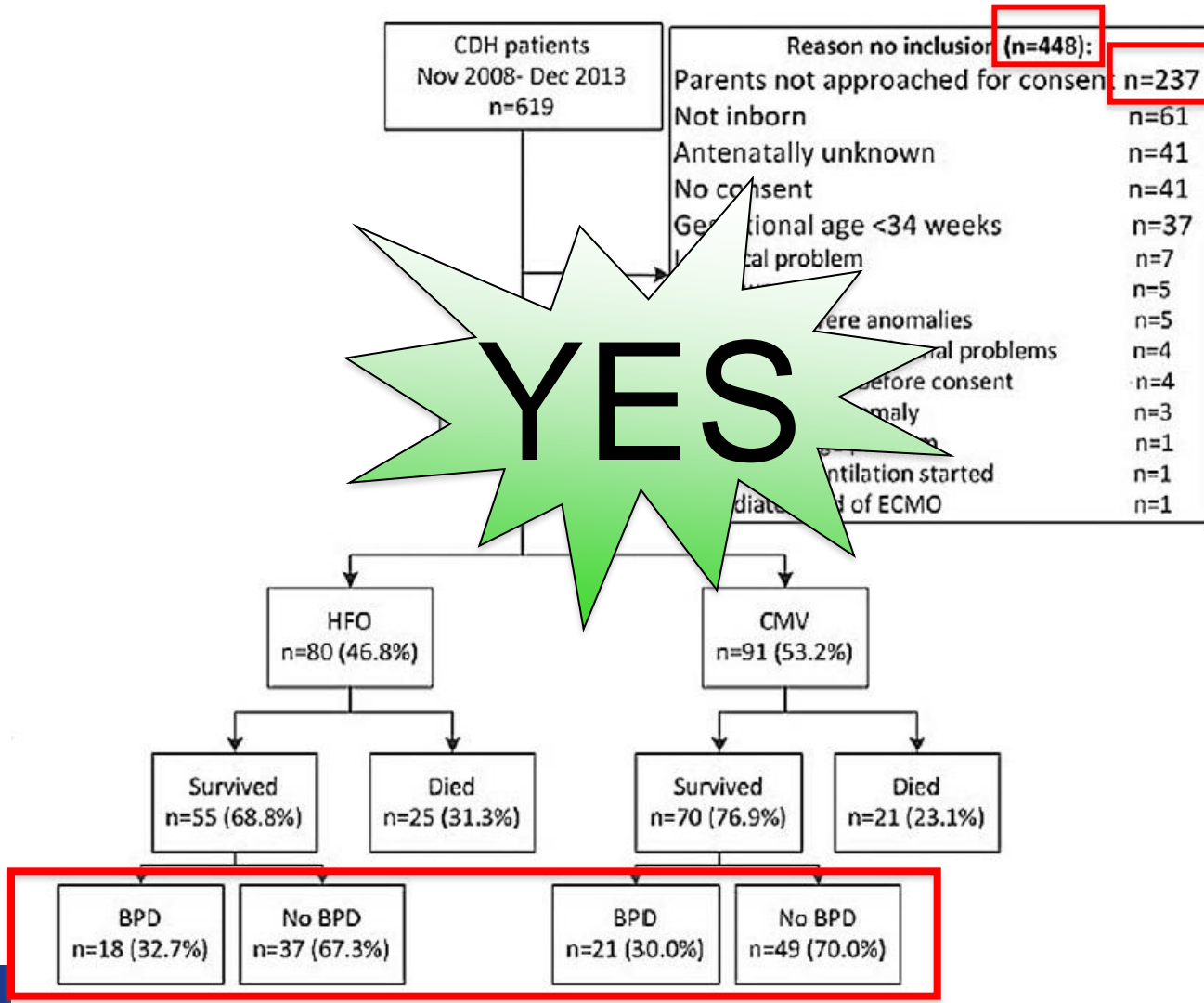
Pulmonary Barotrauma in Congenital Diaphragmatic Hernia: A Clinicopathological Correlation

By Yoshio Sakurai, Kenneth Azarow, Ernest Cutz, Antonio Messineo, Richard Pearl, and Desmond Bohn
Toronto, Ontario

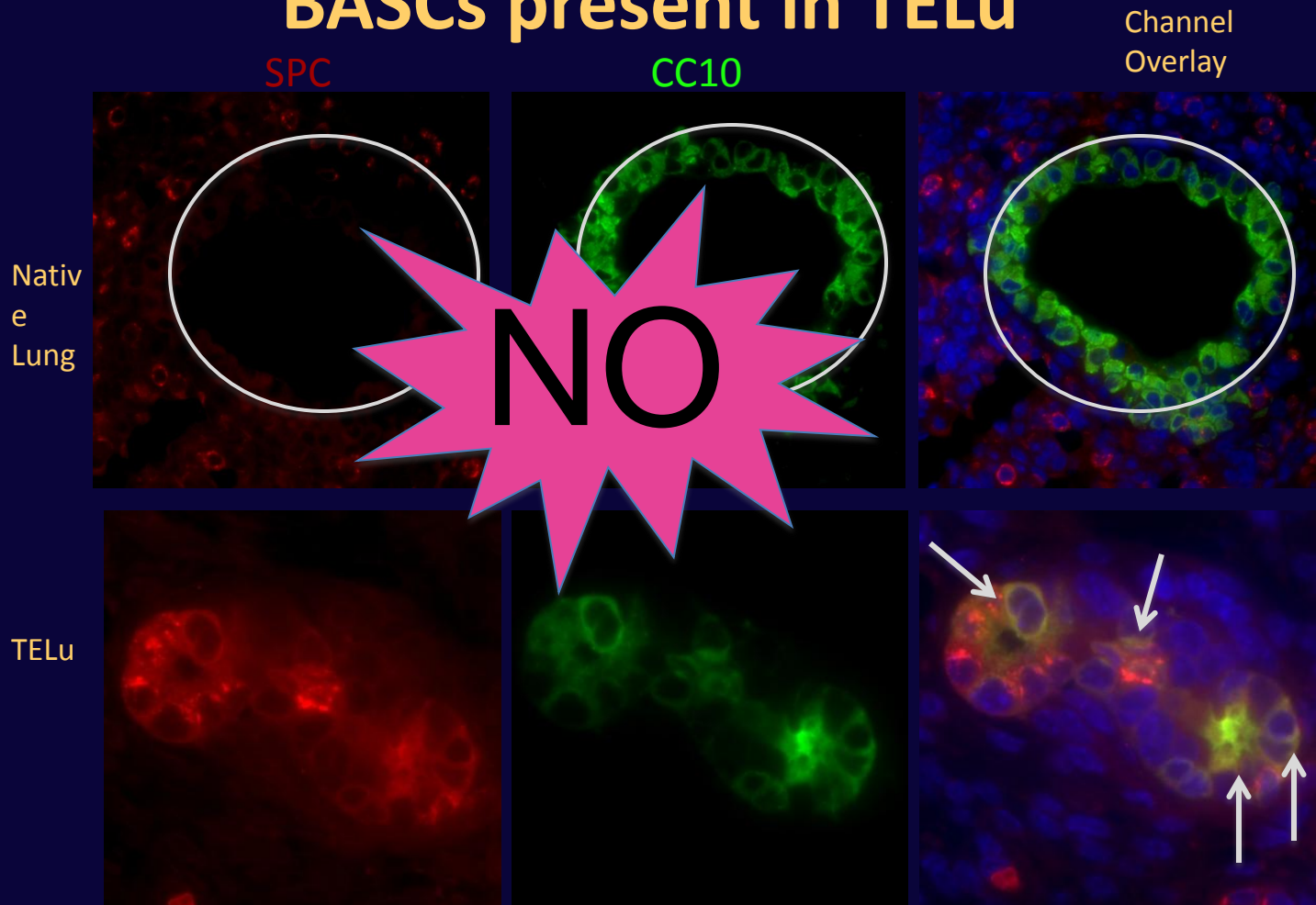
Table 3. Characteristics of Lung Injury in CDH

Characteristics of Lung Injury	Unilateral (%)	Bilateral (%)	Contralateral (%)	Total No. of Occurrences (%)
Hyaline membrane formation	52/68 (77)	9/68 (13)	1/68 (1)	62/68 (91)
Pneumothorax	9/68 (13)	10/68 (15)	25/68 (37)	44/68 (65)
Intertitial fibrosis	3/68 (5)		1/68 (1)	4/6 (6)
Parenchymal hemorrhage	32/68 (46)	3/68 (4)		35/68 (50)
Bronchopneumonia	12/68 (18)	10/68 (15)	1/68 (1)	23/68



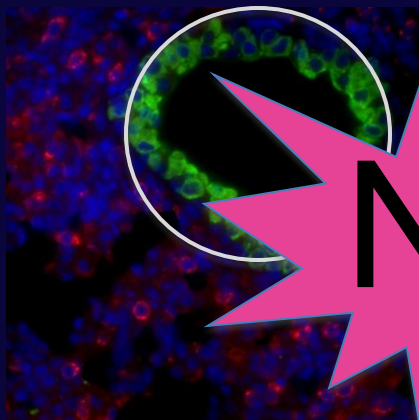


BASCs present in TELu

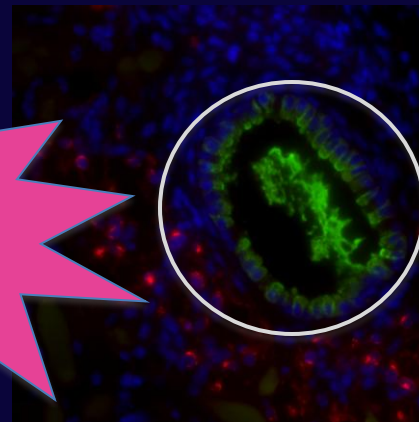


CC-10, SPC, and T1 α positive cells

Native Lung

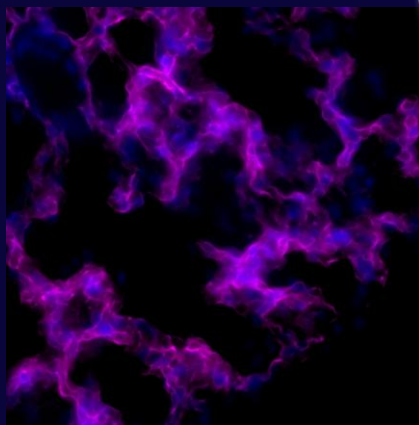


TELu

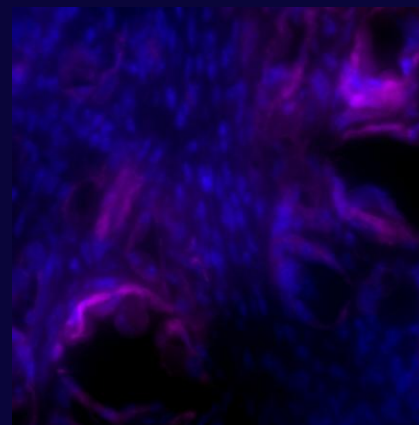


NO

Native Lung

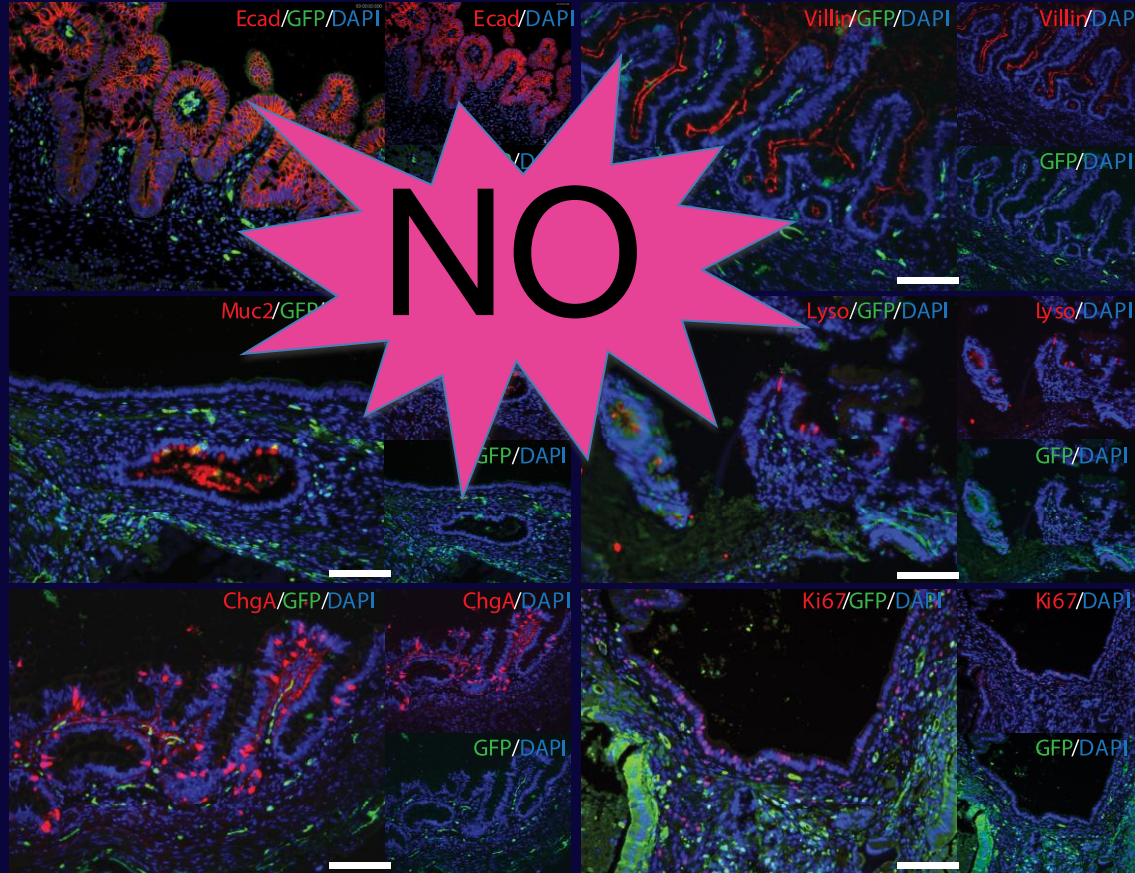


TELu

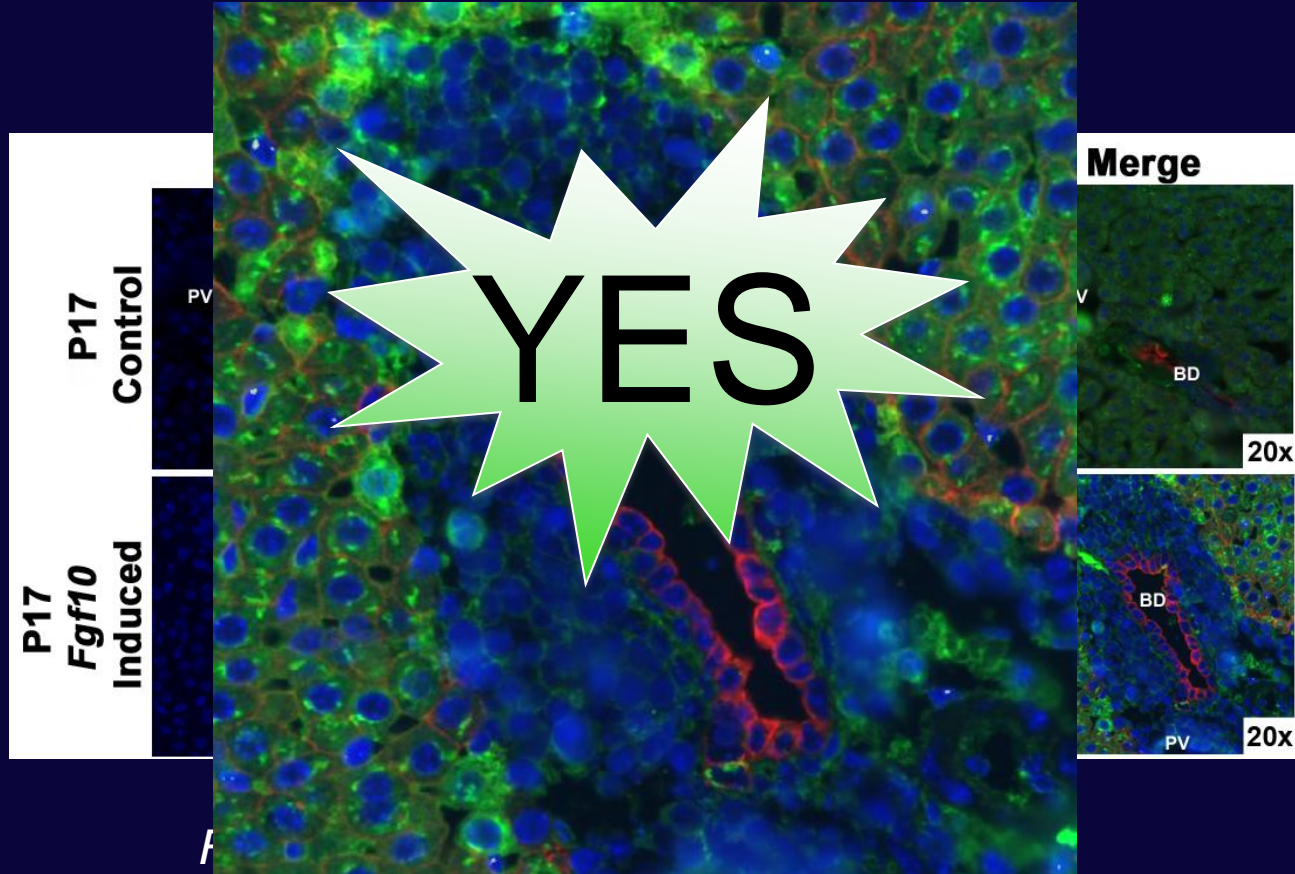


T1- α

Co-implantation of HIO and OU maintains differentiated epithelial cell development

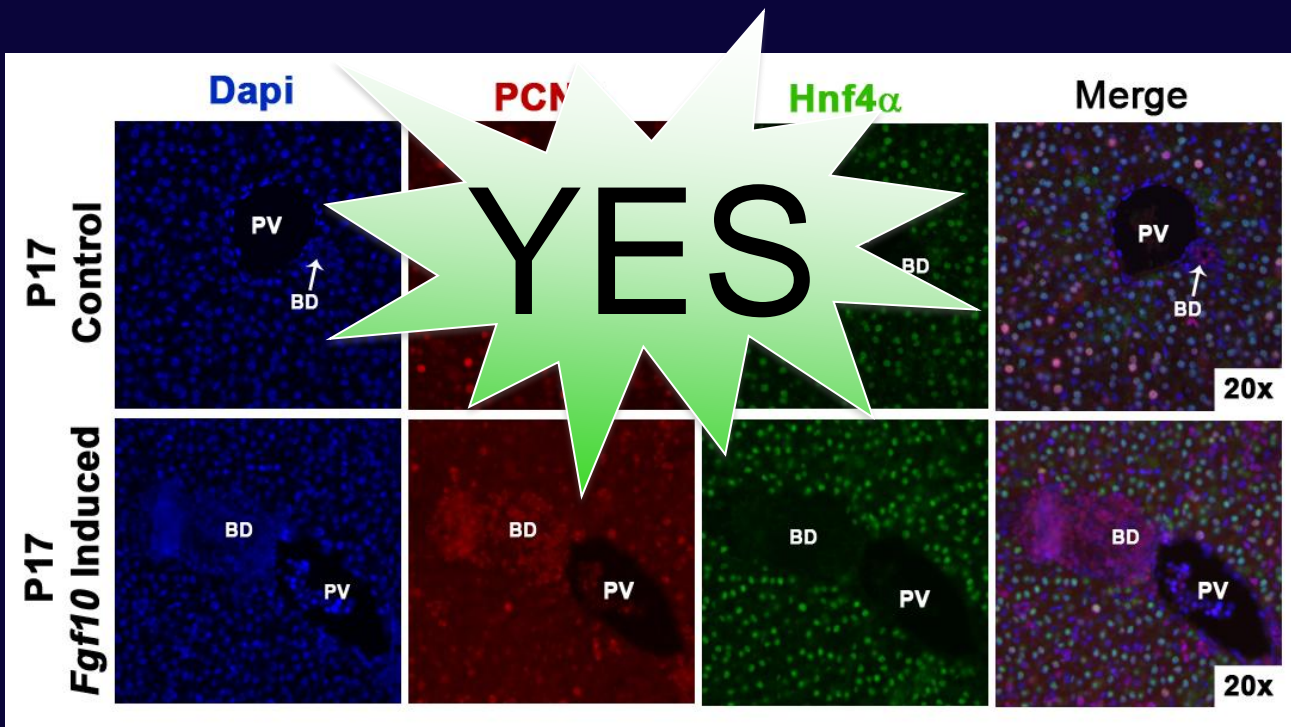


Expanded periportal cells:



- Pre-hepatocyte phenotype

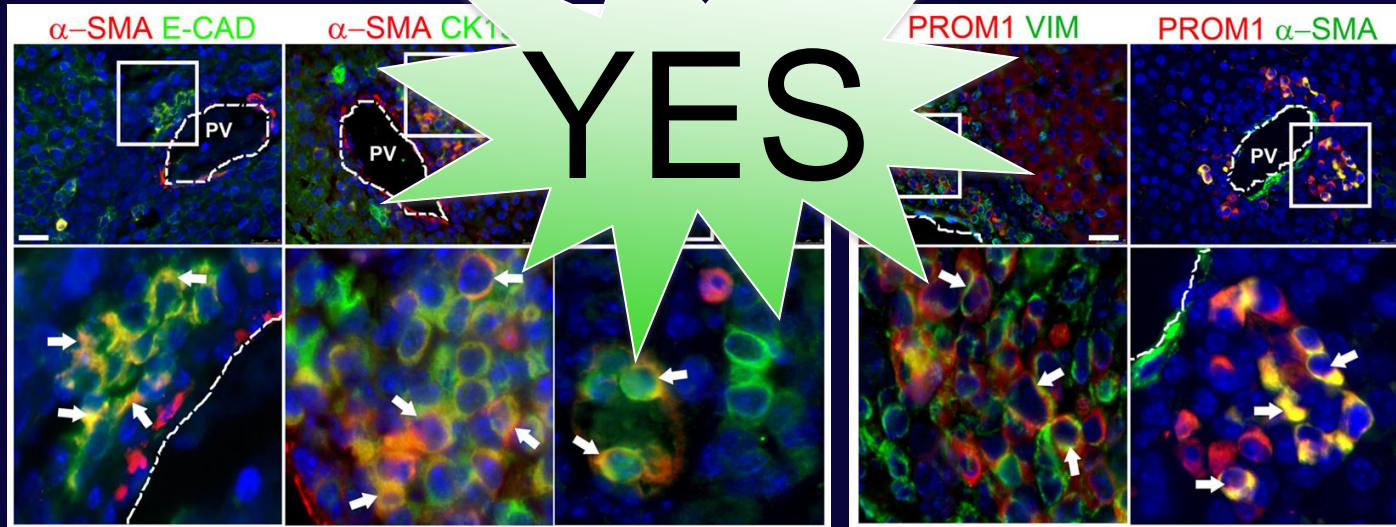
Expanded cells are proliferating but HNF4 α



HNF4 α : marker of hepatocyte differentiation

- Negative expression suggests a HPC phenotype

PROM1 cells express epithelial and mesenchymal markers



Background

- Neuroblastoma represents ~15% of all pediatric cancer related deaths
- High-risk neuroblastoma survival rate: 40-50%
- ~80% of high-risk patients will initially achieve remission
- Most common cause of death from relapse and metastatic disease



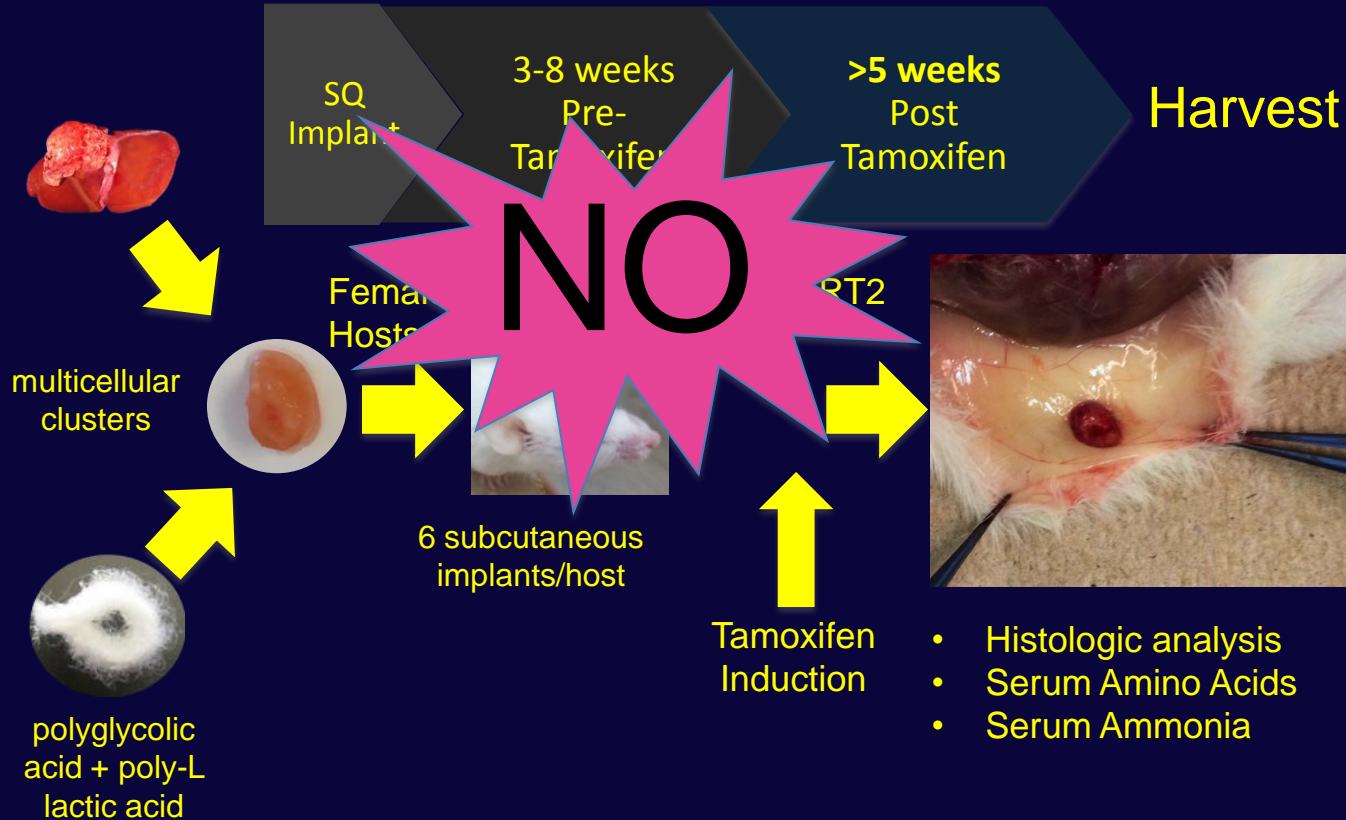
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Background

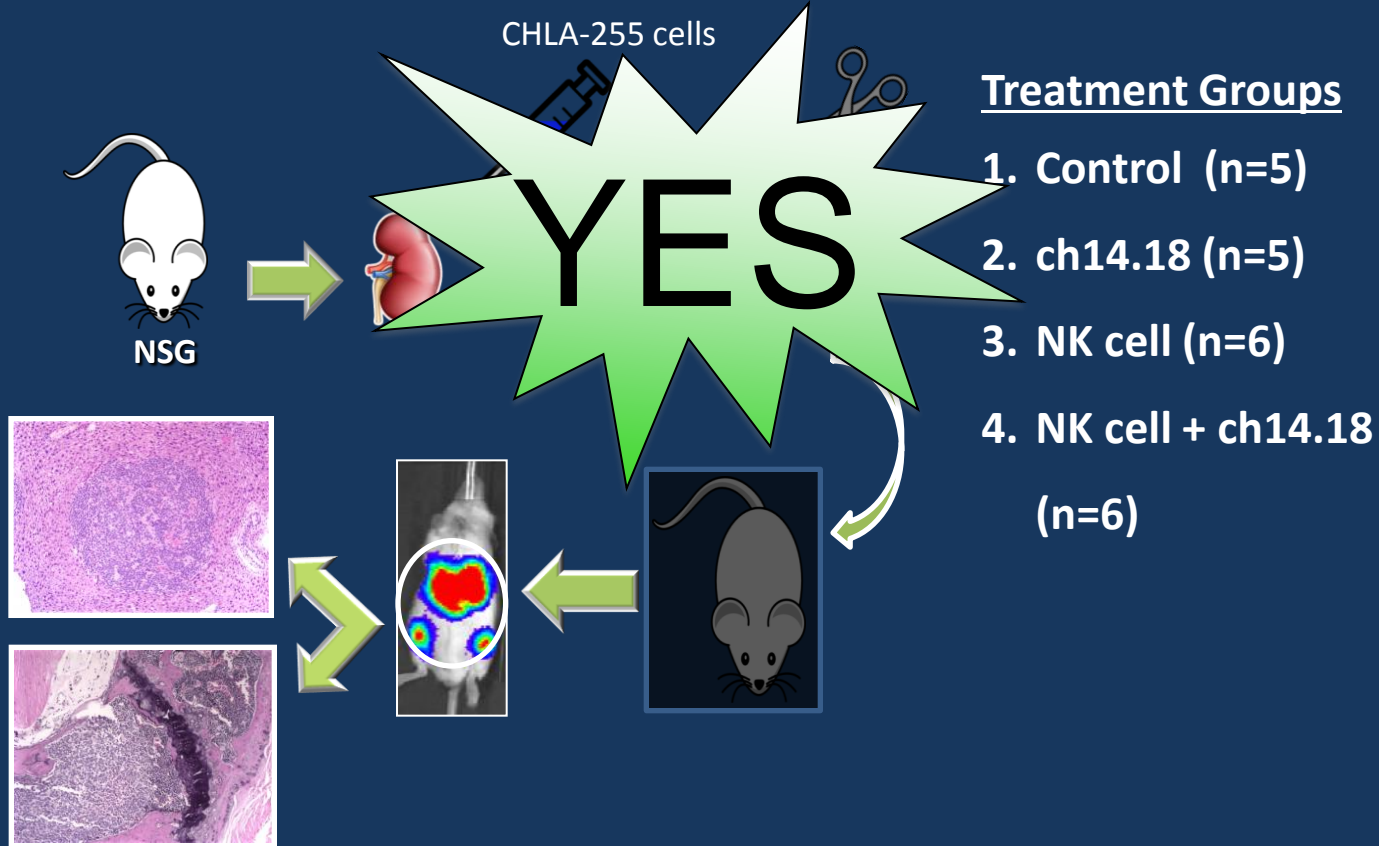
- Neuroblastoma represents **15%** of all pediatric cancer related deaths
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- Most common cause of death from relapse and metastatic disease



Implanted Prior to ARG1 Knockout



Methods



A Prospective Study of Expectant Observation as Primary Therapy for Neuroblastoma in Young Infants

A Children's Oncology Group Study

Jed G. Nuchtern, MD, Wendy B. London, PhD,†|| Carol A. Barnewolt, MD,‡ Arlene Naranjo, PhD,||¶
Patrick W. McGrady, MS,||¶ James D. Geiger, MD,#|| Robert Diller, MD,†|| Mary Lou Schmidt, MD,**
John M. J. ... MD,†† Susan ... Cohn, M ... and Robert C. Shamberger, MD§*



NO

- Study design: Prospective, randomized, controlled trial including Children's Oncology Group
- Patient population < 6 months old with small adrenal masses and no evidence of spreading beyond the primary tumor
- Methods: Parents chose observation or immediate surgical resection. Serial abdominal sonograms and urinary vanillylmandelic acid and homovanillic acid measurements were performed during a 90-week interval. Infants experiencing a 50% increase in the volume of the mass, urine catecholamine values, or an increase in the homovanillic acid to vanillylmandelic acid ratio greater than 2, were referred for surgical resection.

Necrotizing Enterocolitis

EARLY FEEDING AND NUTRITION IN NECROTIZING ENTEROCOLITIS

BETTINA BOHNHORST, MD

CLAUS

YES

CORINNA S. PETER, MD,

- J Pediatrics, 2003
- Single-center, retrospective cohort
- Advanced at 20cc/kg/day after 3 days of no portal venous gas on ultrasound

Necrotizing Enterocolitis-early refeeding

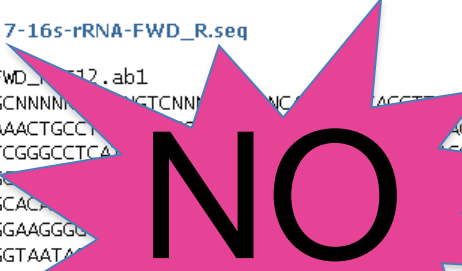
- 28 infants with NEC of 1st degree at least 1 year observation
- 19 infants with NEC of 1st degree in the intervention group
- 2 recurrences in group vs 1 recurrence in historical control
- Conclusions: Not significant difference but underpowered



Cronobacter sakazakii using V6-V8 primer

Sequence File : 7-16s-rRNA-FWD_R.seq

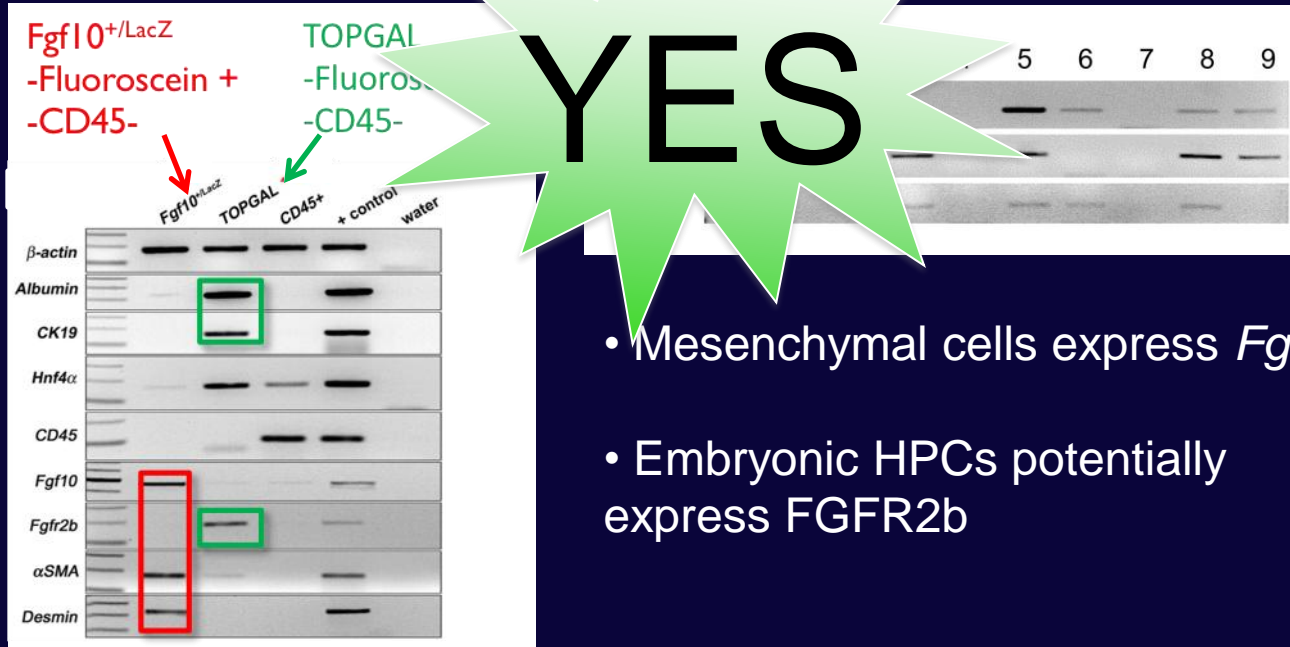
```
>7-16s-rRNA-FWD_R_171.ab1
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GTAATGTCTGGGAAACTGCCCTAGCTAATACCGCATAACGTGCGAAGACCAA
AGTGGGGGACCTTCGGGCTCAAGCCTAGTAGGTGGGGTAAACGGCTCACCTAGG
CGACGATCCCTAGCCTCCAGACTCCTACGGGAGGCAGCA
GTGGGGAATATTGCACAGTGAAGAAGGCCTTCGGGTTGTAAGTAC
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NGAATGTGGNNNNTCCNCCANGAGCENNNCNINATCCTTNTTGCCAGCNNTTATGNNNGNNTTNNAAAGNNNNNTGNCN
GGNNNNN
```



Description	Max score	Total score	Query cover	E value	Ident	Accession
<input type="checkbox"/> Cronobacter muytjensii strain Jori149 16S ribosomal RNA gene, partial sequence	1783	1783	89%	0.0	98%	FJ906912.1
<input type="checkbox"/> Cronobacter muytjensii strain E603; ATCC 51329 16S ribosomal RNA gene, partial sequence	1779	1779	89%	0.0	98%	NR_044059.1
<input type="checkbox"/> Cronobacter muytjensii strain E456 16S ribosomal RNA gene, partial sequence	1779	1779	89%	0.0	98%	EF059837.1
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<input type="checkbox"/> Cronobacter muytjensii strain WJ1619 16S ribosomal RNA gene, partial sequence	1777	1777	89%	0.0	98%	KC818177.1
<input type="checkbox"/> Cronobacter muytjensii strain WJ1078 16S ribosomal RNA gene, partial sequence	1777	1777	89%	0.0	98%	KC818149.1
<input type="checkbox"/> Cronobacter muytjensii strain ZJN392B3 16S ribosomal RNA gene, partial sequence	1777	1777	89%	0.0	98%	JX307659.1
<input type="checkbox"/> Cronobacter muytjensii partial 16S rRNA gene, isolate PHLTA-6	1777	1777	89%	0.0	98%	FN401338.1

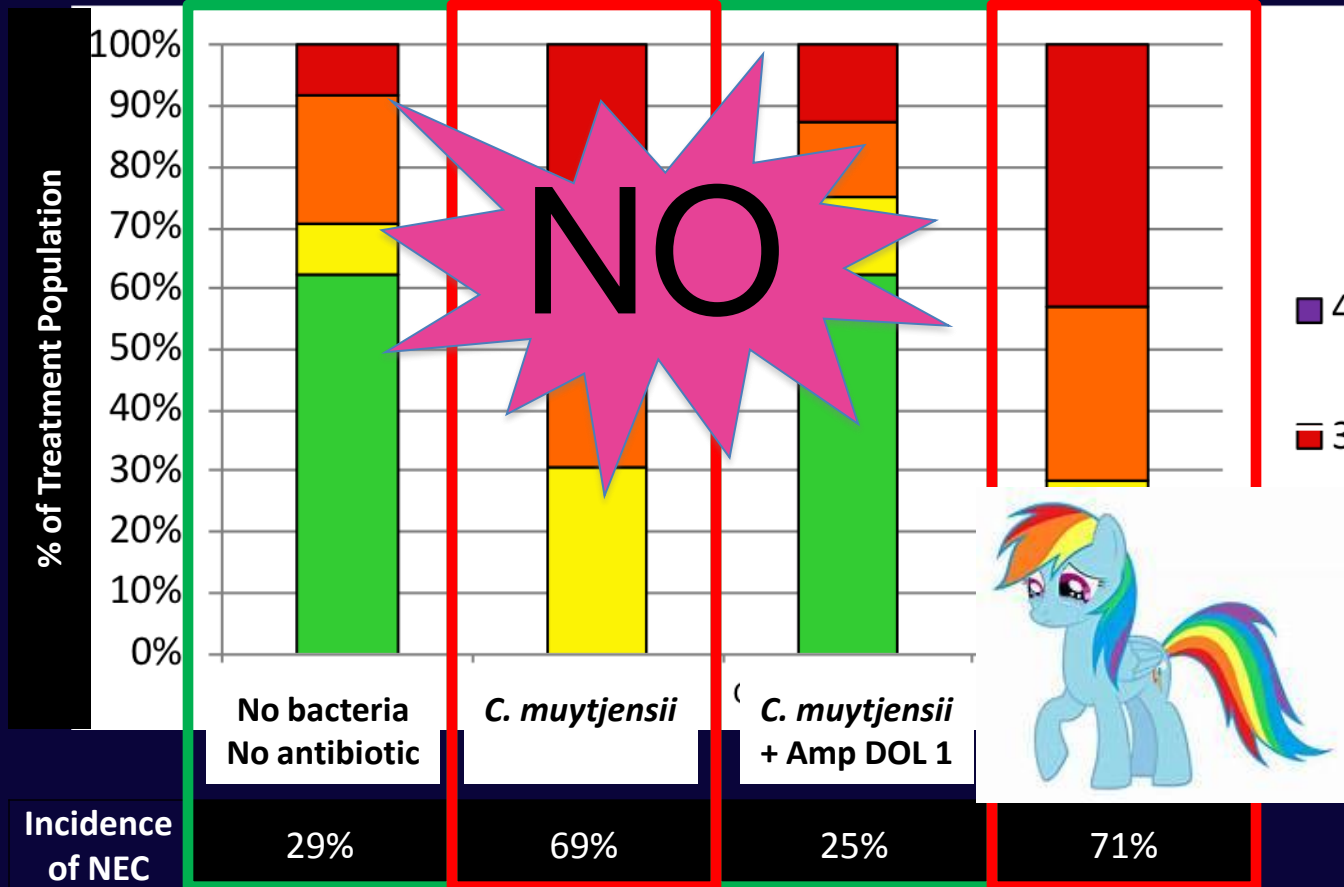


FGF10 signals from mesenchymal cells to hepatic progenitor cells



- Mesenchymal cells express *Fgf10*
- Embryonic HPCs potentially express FGFR2b

Early ABx Protect Against Opportunistic Pathogens



Goals of Today's Session

In Pediatric Trauma Patients:

- Identification of different injury types
- Imaging and management of head injuries
- Indications for cervical collar and radiographic imaging
- Screening for intra-abdominal injury, indications for imaging
- Identification of patients at risk for NAT




OK

Goals of Today's Session

In Pediatric Trauma Patients:

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- Screening for intra-abdominal injury, indications for imaging
- Identification of patients at risk for NAT



YES

The End

- Questions?



@dreskim

Email: eugeneskim@chla.usc.edu