

9 year-old: Tether vs. Early Fusion

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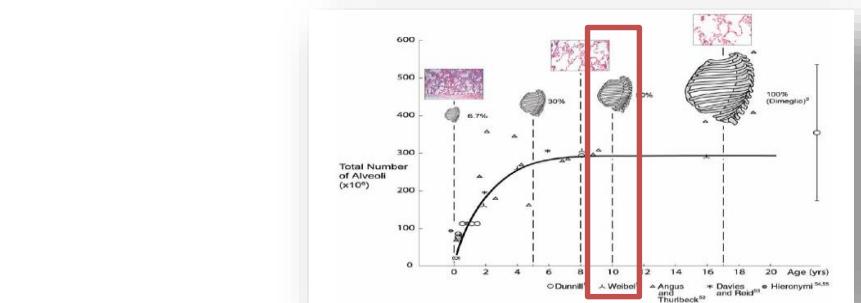
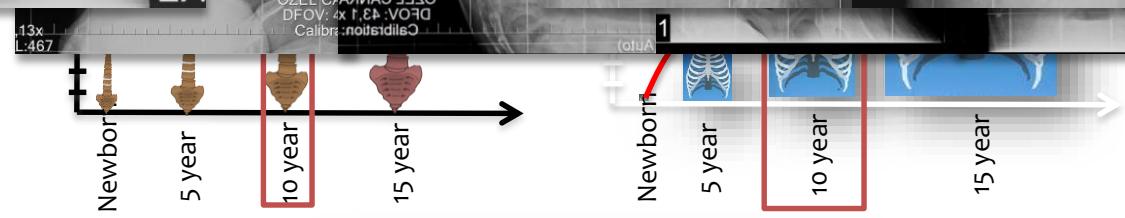
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- No disclosure!

1st ICEOS/November 2, 2007



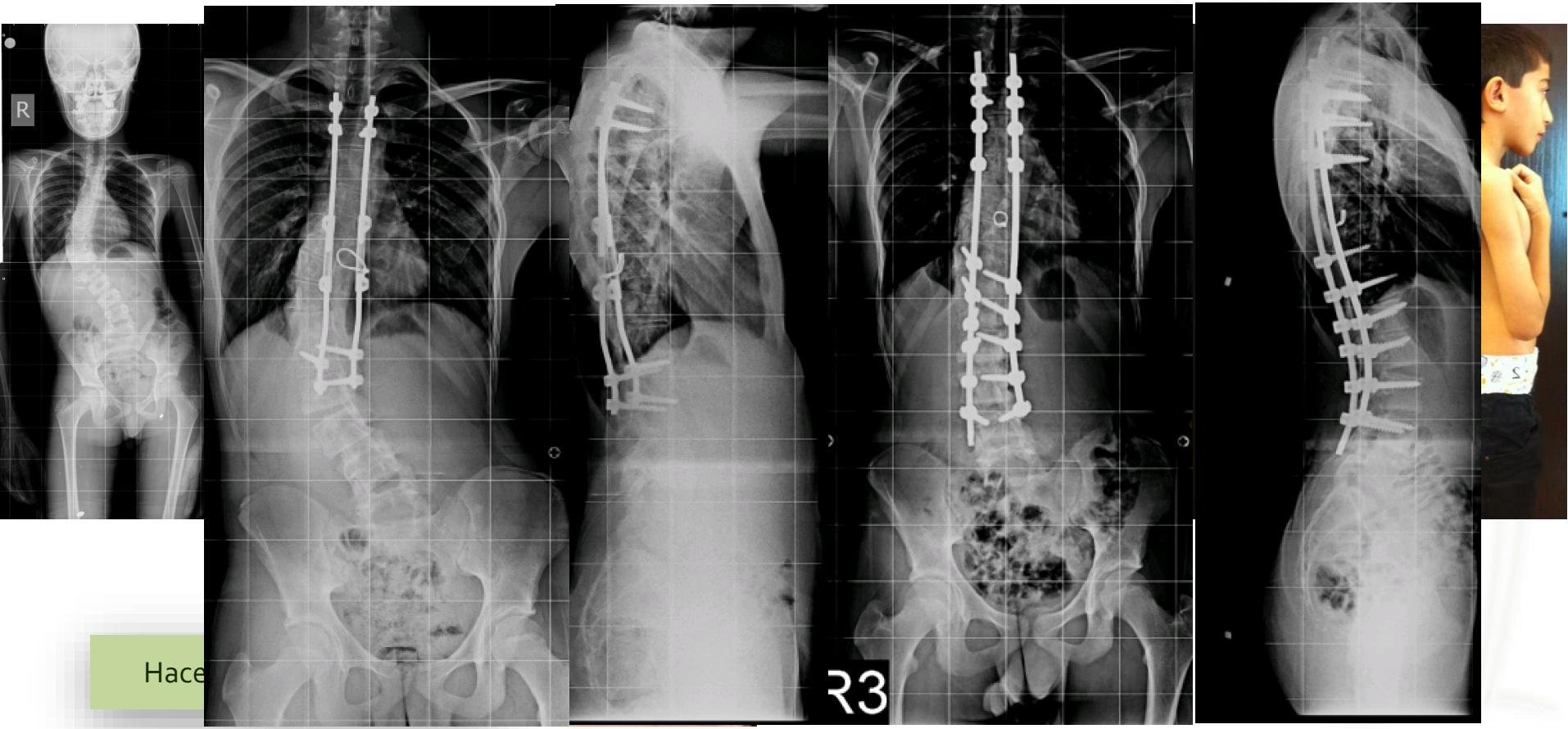
10 year-old girl with idiopathic scoliosis: Tether vs. Early Fusion

- Idiopathic or
- Idiopathic!



10 year old boy with IS

- Definitive fusion vs. tether
 - Of course GFT



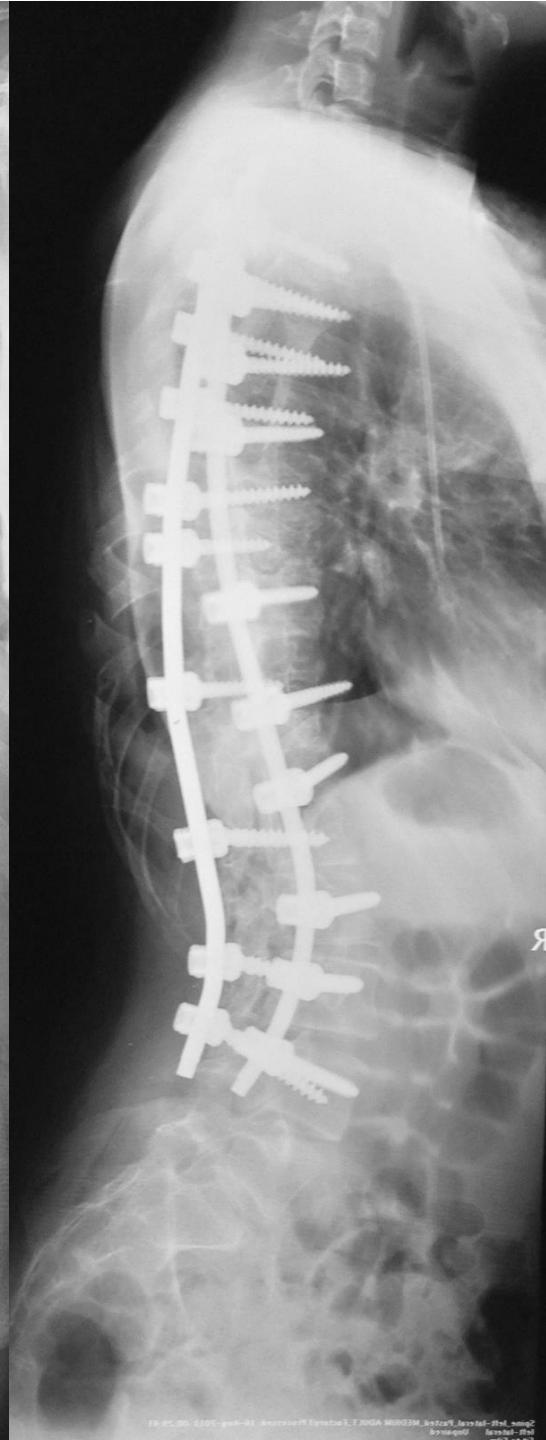
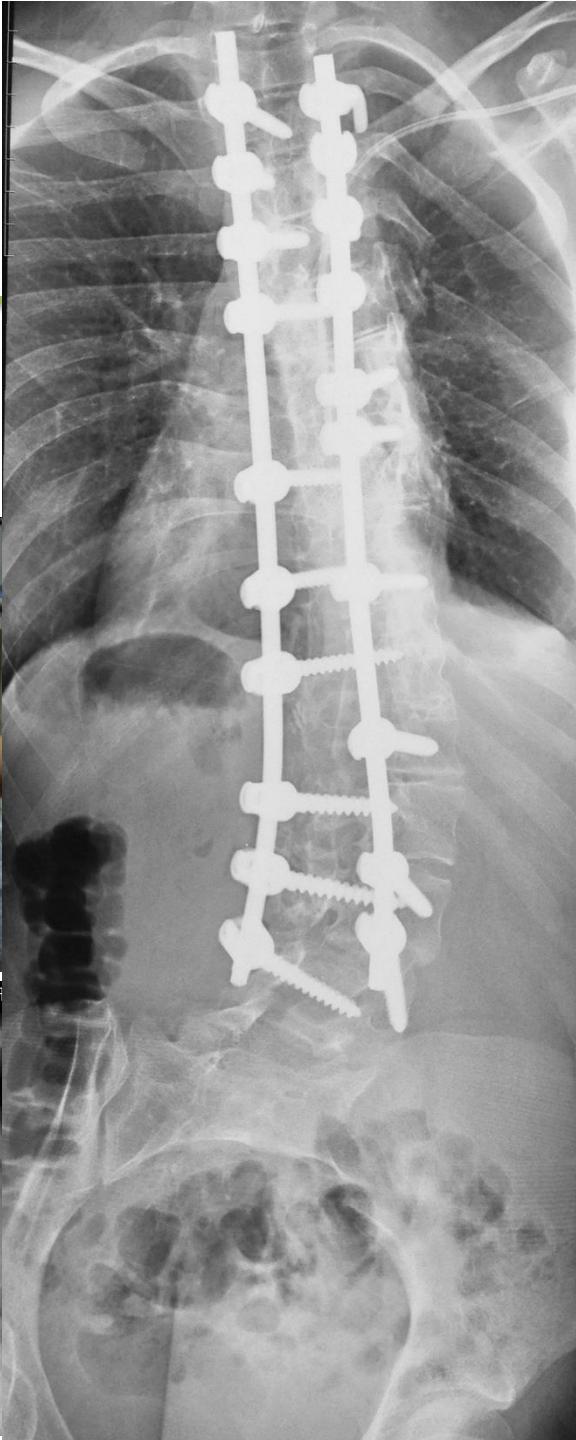
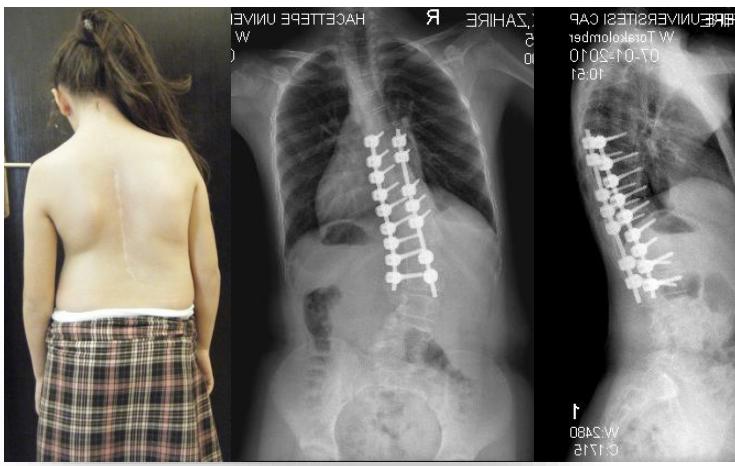
Why fusion?

- One step procedure
- Predictable results
- No significant morbidity
 - Easy to recover
 - Fast return to daily activity
 - Maximum correction in all plane
 - No chest destruction



Why not fusion

- Fusion
 - Crankshaft



Why tether?

- Motion
- Disk preservation
 - ?????
- Minimal invasiveness
 - Thoracoscopy!

Why not tether?

- Relatively high complication!
 - Success
 - 59%
 - Revision
 - 7 out 17
 - 1 revised by PSF and 3 more is planned!
- Rotational correction rib hump correction?
- Uncertainty
- Disc health??

Why not tether?



Uncertainty is more stressful than certainty of bad things to come

Tether

- Innovation
- New, modern, popular and sexy!
- Motion preservation vs. stiffness

- Stiffness
 - Udoekwere, Sturm et.al, Spine Def 2014
 - Plug-in-gait model
 - Reduced trunk mobility in all motion planes
 - Peak forward flexion reduction 24-28% for LIV=T12-L1
 - Limitations of axial rotation and backward extension are same in all LIV's

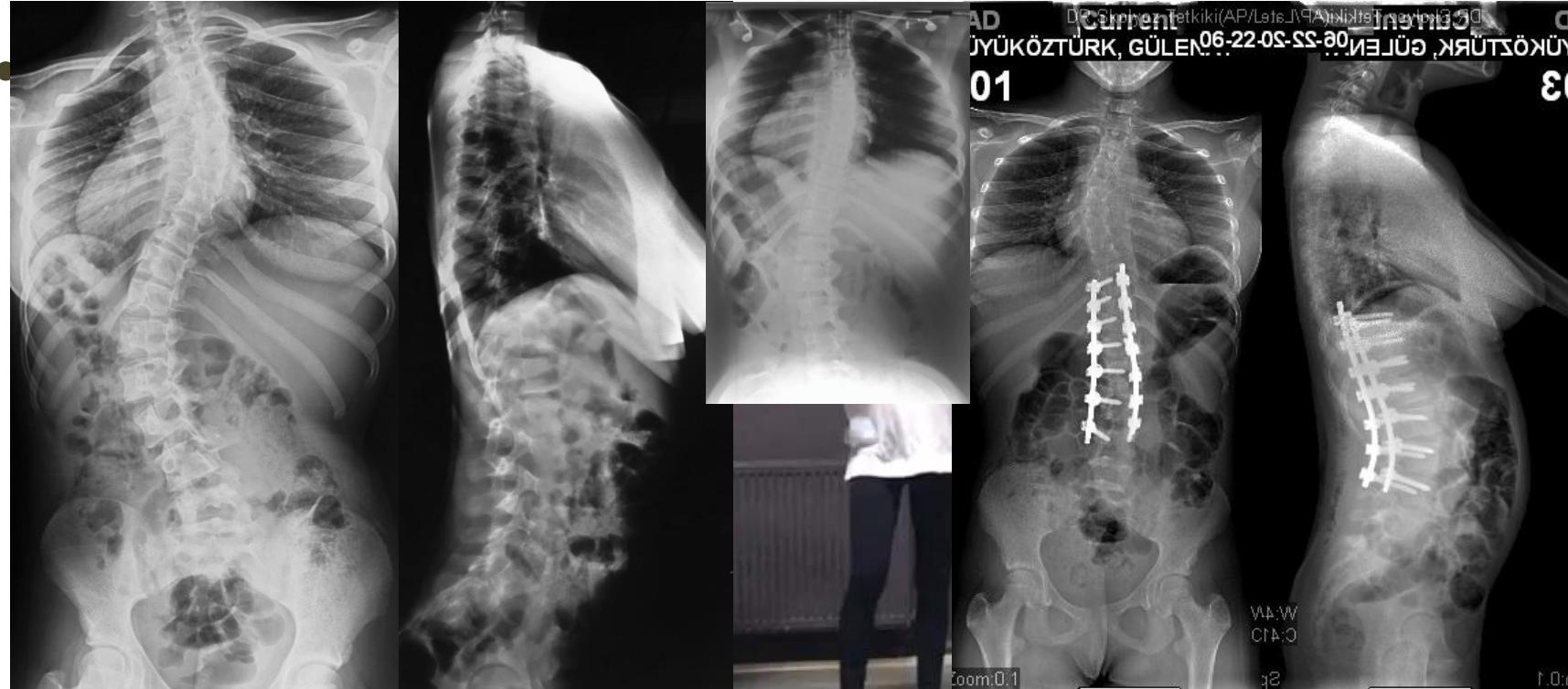
- Segmental hypermobility @ unfused segments
 - Marks et.al., Spine 2012 and Spine Def 2015
 - Digital images on static bending positions
 - Increased summed motion @ unfused segments
 - More distal LIV, significant increase on L3-S1 segments
 - Holewijn, de Kleuver, Spine J 2018
 - Gait analysis/ dynamic
 - No compensatory increase in The ROM

Is this risky?

- Motion today
- Degeneration tomorrow
- If not
 - Why we are looking for adventure



Tether vs. fusion



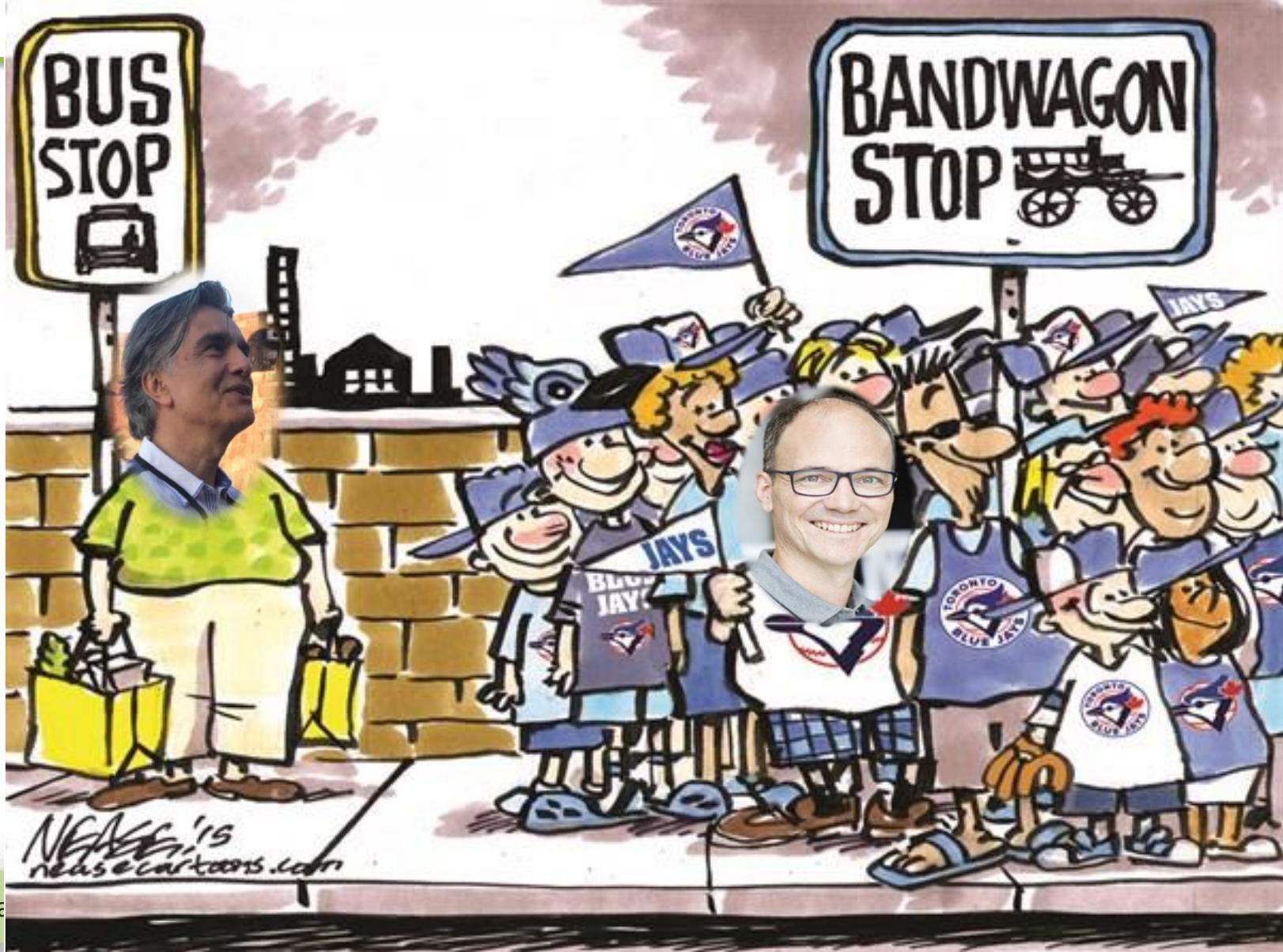
Hace

Tether



BANDWAGON EFFECT

Tether





PROGRAM AGENDA



Friday, November 16 2028 continued

2:45 – 3:00 Refreshment Break & Exhibit Viewing

3:00 – 3:35 Session 10: The Bandwagon I Jumped On and then Off...
Moderators: Charles Johnston, Brandon Ramo

3:00 – 3:05 Stephan Parent

3:06 – 3:11 Carol Hasler

3:12 – 3:17 Discussion

3:18 – 3:23 Rich Anderson