

# Introduction to the National Autism Conference 2016

August 1, 2016  
National Autism Conference  
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Pennsylvania Training and Technical Assistance Network

Welcome to the National Autism  
Conference!

## This session

- Will provide a review of some basic information related to technical terminology you may hear across many sessions
- Will provide a review of the conference schedule and highlights related to areas of interest

## Pinon Nuts



## How do we explain humor?

- How do we teach such complex skills?
- How do we make listening to jokes valuable?
- Is there some sort of skill sequence that can lead a person to learn to “get” jokes?

## To get the joke:

- The listener must be “interested” in the speaker and talking must be valuable
- “Nut” must be acquired as a concept
  - Say nut when you see a nut
  - Critical features of nut
- New members of the class of nut must be readily acquired (pinon fits the category)
- The relation between things seen and what people say must be established (hearing “nut” or “pinon” causes one to say a whole range of related words)

- The word Pinon and the word “opinion” must be “confused”: the way one of the words sounds results in a tendency to “think” of the other word
- The saying “difference of opinion” must be familiar and cause some feeling of “tension” (a problem without an immediate response)
- The inability to solve the question “what do you have?” also builds “tension”
- The word difference must link to:
  - The relation between difference and subtraction
- Hearing the play on words must break the tension (solve the problem) in an unexpected way

### **The analysis of complex skill sets can guide instruction**

- Teach the names of things
- Teach the verbal relations
- Teach the concepts
- Teach range of variability of use
- Teach efficiently so that concepts related to already learned skills can be recombined in novel ways

## The big point about this conference....

- The National Autism Conference is about instruction and autism
- It is probably the largest education conference in the world focused on education and the needs of students with autism
- Many of the sessions are focused on issues related to systematically building complex social and verbal skill sets!

## What is Autism?

- Let's look at the definition found in DSM V
- That's DSM 299.00 in case you were wondering!
- Keep in mind that no child is "autism": each child is an individual
- "You've met one child with autism, you've met one child with autism" P. Gerhardt

## What Are Autism Spectrum Disorders? (DSM V Summary)

- **Social-Communication Deficits and Repetitive Behaviors:**
  - responding inappropriately in conversations
  - misreading nonverbal interactions
  - having difficulty building friendships appropriate to their age
  - may be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on inappropriate items
- The symptoms fall on a continuum (from mild to severe)
- Variations in symptoms and behaviors from person to person
- Symptoms occur from early childhood, even if those symptoms are not recognized until later
- Adapted from: <http://www.dsm5.org/Documents/Autism%20Spectrum%20Disorder%20Fact%20Sheet.pdf>

## What are Autism Spectrum Disorders?

- **Developmental Disability**
- **Diagnosis derived from behavior**
  - No brain scan or blood test
  - Assumed biological disorder most likely of genetic origin characterized by qualitative differences in:
    - Social communication
    - Repetitive and stereotyped behaviors

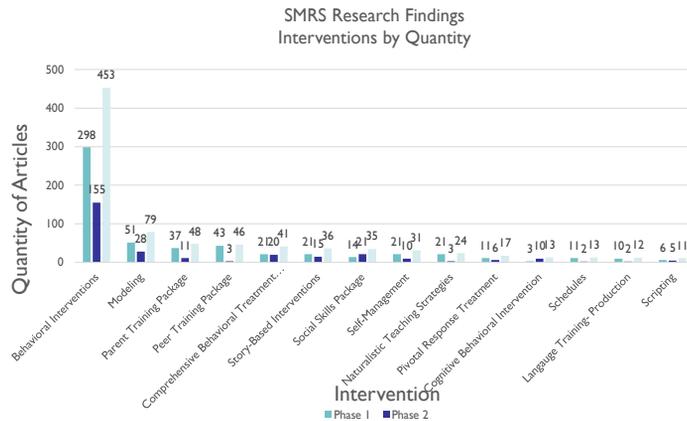
## What does the literature say about effective instruction and autism?

- National Autism Center Standards Reports (2009; 2015) probably provides the most thorough and relevant summary

### National Autism Center Standards Report Phase 2:

- “The National Autism Center has adopted the definition of evidence-based practice offered by David Sackett and his Colleagues: evidence based practice as ‘the integration of best research evidence, professional judgment, and values and preferences of clients.’” p.80
- “The combined results of NSP1 and NSP2 include data from more than 1000 studies. This is the largest review of its kind for individuals with ASD.” p. 80
- The report and evaluation methods can be retrieved from:  
<http://www.nationalautismcenter.org/national-standards-project/phase-2/>

## Evidence-Based Interventions by Quantity of Findings



## NAC Standards Report Conclusions (2009):

- Approximately two-thirds of the Established Treatments were developed **exclusively** from the behavioral literature (e.g., **applied behavior analysis**).
- Of the remaining one-third of the Established treatments studies are derived **predominantly** from the behavioral literature.
- This pattern of findings suggests that treatments from the behavioral literature have the strongest research support at this time
- PATTAN Autism Initiative focuses primarily on interventions derived from or relying on principles of ABA

## Further Evidence for ABA and Autism Treatments

- National Autism Center Standards Report
- Maine Administrators Report
- Missouri Autism Guidelines
- Numerous research articles published in a wide range of behavioral, educational and disability focused peer reviewed journals
- Student level data: probably the strongest argument for ABA

## Autism “A fad magnet” (Metz and Mulick, 2005)

- Be wary of quick fix interventions: some examples..
  - Sensory Integration
  - Facilitated communication
  - Vaccines/Mercury cause Autism
  - Rapid prompting
  - Certain biomedical interventions (chelation; diets)
  - And on and on....

## Sessions on Evidence and Implications

- 12: Iser Deleon: "We Tried Reinforcement, But it Didn't Work" – Analyzing Contingency Failures in Instructional Settings
- 19 AI Poling: Using Drugs to Improve the Behavior of People With Autism Spectrum Disorder: A Skeptical Appraisal
- 62 Tom Freeman: Pharmacology and autism treatments

## Sessions on Evidence and It's Implications

- Erica Simmons & Andrea Bianco: Promising Practices - Autism Services in Urban Areas: Two Examples of Integrated Intensive Programming
- 57B Kara Vollmer & Ginette Drabert: Autism Services in Rural Areas: Two Examples of Integrated Intensive Programming

## Past Conferences!

Also: website PSU archives...

<http://legacy.wpsu.org/live/archive/>

## Quality Educational Programs: Key Features

- Focus on addressing core deficits of autism
- Provide high rates of active student responding
- Build Skills: explicit instruction
- Use of positive reinforcement/skill building
- Honor student interests, personality and skills
- Data driven
- Collaborative! Video Harrisburg case studies

## Sessions on Quality Instruction

- 15 Amy Stango: Working as a team to create goals and measure progress
- 27 Amy Stango: Teaching handwriting
- 20 Douglas Greer: Building Social Reinforcers are Key to Children's Social and Educational Prognosis
- 37 Ashley Harned: Instruction Basics
- 34 Jolin Jackson: Social Skills
- 38 David Roth: Stimulus control and its role in errorless teaching

## Sessions on Quality Instruction

- 44 Judah Axe: Teaching problem solving to increase academic, communication, and social skills
- 51 Amiris Dipuglia: Considerations for teaching Early Reading skills
- 60 Francesca Degli Espinosa and David Palmer: Beyond the elementary verbal operants: multiple control, intraverbal control and remembering
- 64 and 74 Jared Campbell: Math
-

## A Brief Review of ABA

- ABA is not a thing or a procedure
- It is a system of evaluating how the behavior of individuals systematically changes in relation to the ongoing and past situations in which the person behaves.

## So What is ABA?

- The application of science of learning to socially significant human behavior
  - Applied: socially significant
  - Behavior: relation between environmental events and what people do
  - Analysis: uses scientific methods to establish and evaluate applications
  - It is a process, not necessarily a procedure
- Any intervention/method can use ABA; however, not all interventions do!

## ABA and Board Certification

(Behavior Analysis Certification Board)

- What is a BCBA?
- What is a BCaBA?
- What is a RBT?
- Why are they helpful?

Session : Recent Developments at the Behavior Analyst Certification Board Immediately after this session. I

## Applied Behavior Analysis

- Builds skills to help people be more independent
- Helpful across:
  - education, business, health practices** (e.g. smoking cessation, weight loss, reducing obsessions, etc), **animal training** (e.g. pouched rats and land mines), **environmental sustainability** (e.g. towel reuse in hotels and litter reduction), **occupational safety, gun safety, transportation safety, and more....**

## ABC Analysis

- A = Antecedent (before behavior)
- B = Behavior (what a person does: observable and measureable)
- C = Consequence (after behavior)

video ABC analysis

## Behavior Analysis Key Terms

- Antecedent
  - Motivating Operation
    - Unlearned (UMO)
    - Transitive (CMO-T)
    - Reflexive (CMO-R)
  - Discriminative stimulus (Sd)
    - Stimulus control
    - Instructional control
  - Prompt

## Behavior Analysis Key Terms

- Consequence
  - Reinforcement
  - Positive Reinforcement
  - Negative Reinforcement
  - Punishment
  - Extinction
  - Schedules of Reinforcement (for instance, continuous, variable ratio, interval)

## Why an ABC Analysis is Helpful

- It avoids having to guess about un-observable events (what is going on “inside the person”)
- It is optimistic!
- It allows for checking to see that interventions really work!

## Some Educational Applications of ABA

- Mand Training
- Discrete Trial Training
  - Errorless Teaching
  - Error correction
- Direct Instruction
- Social skill building
- Altering a school culture

## Sessions on Behavior Analysis

- 13 Melissa Novik: BACB update
- 29 Jose Matinez Diaz: Professional behavior analysis and ethical practice
- 30 Stephanie Peterson: the worst kept secrets for successful school and BCBA Collaboration
- 72 Tom Freeman: Ethics
- 77 Rachel Kittenbrink: Applying the science to supervision

## Social Communication and Autism

- The Basic Verbal Operants
  - Speaker Skills
    - Mand
    - Tact
    - Intraverbal
    - Echoic
    - Imitation (with sign language)
  - Listener Skills
    - Listener Responding (Receptive)
  - And Complex Skills
    - Multiple control
    - Atomic repertoires!!! (Palmer, 2012)
- Videos 5-11

## Sessions on the Analysis of Verbal Behavior and Complex Language

- 39 David Palmer: A behavior analytic interpretation of memory
- 41 Miguel Ampuero: Joint control
- 61 and 71 Mark Sundberg: Teaching conversational skills to children with autism: analysis, assessment and intervention
- 69 and 79 Anna Pettursdottir: Update on research on verbal behavior

## What is a mand? Common terms:

- Request
- Asking for something
- A question
- Demanding
- Inquiring
- Commanding

## Mand Videos

- Mand Training
  - Introduction to Mand Training
  - “Video Sharae and Mike”

## Sessions on Mand Training

- 24 Tom Miller/Aysha Campbell: Mand Training
- 61 and 71 Mark Sundberg: Teaching conversational skills to children with autism: analysis, assessment and intervention

## A Functional Approach to Language

Mand: Asking for something (A preferred toy, activity, information, etc.)

Tact: labeling what you see, hear, smell, taste, or touch

Echoic: repeating what has been said

Intraverbal: responding with words to things that have been said (conversation, answering questions, word associations)

## A Functional Approach to Language

Listener responding/receptive: Following directions, selecting things named or otherwise behaving as a listener without speaking

Motor Imitation: Doing the same thing someone else does.

Match to Sample: Putting an item or picture in proximity of something with shared characteristics.

## Some Words About Data

- Key aspect of ABA: understanding some of this may help you at this conference!
- Human memory is quite fallible
- Data helps us remember what happened
- Data helps us see patterns of performance and behavior change
- One might not need data on every behavior, but without data people often end up guessing
- Data systems should not interfere with instruction, rather they should support teaching and learning

## Types of Data

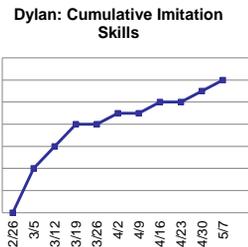
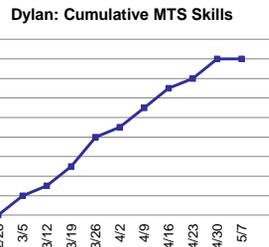
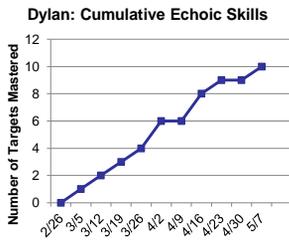
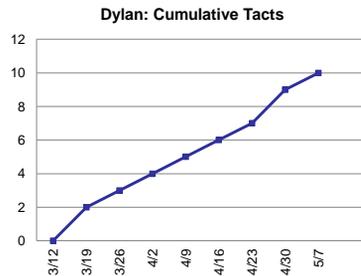
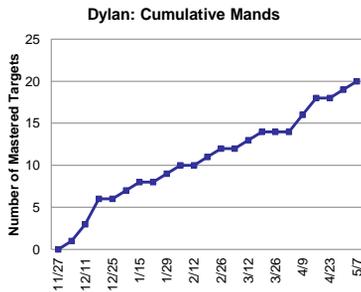
- Counts
- Timings
- Continuous
- Sampled
- Skill Probes
- Cumulative responses or skills acquired

## The Analysis: Functional Relations

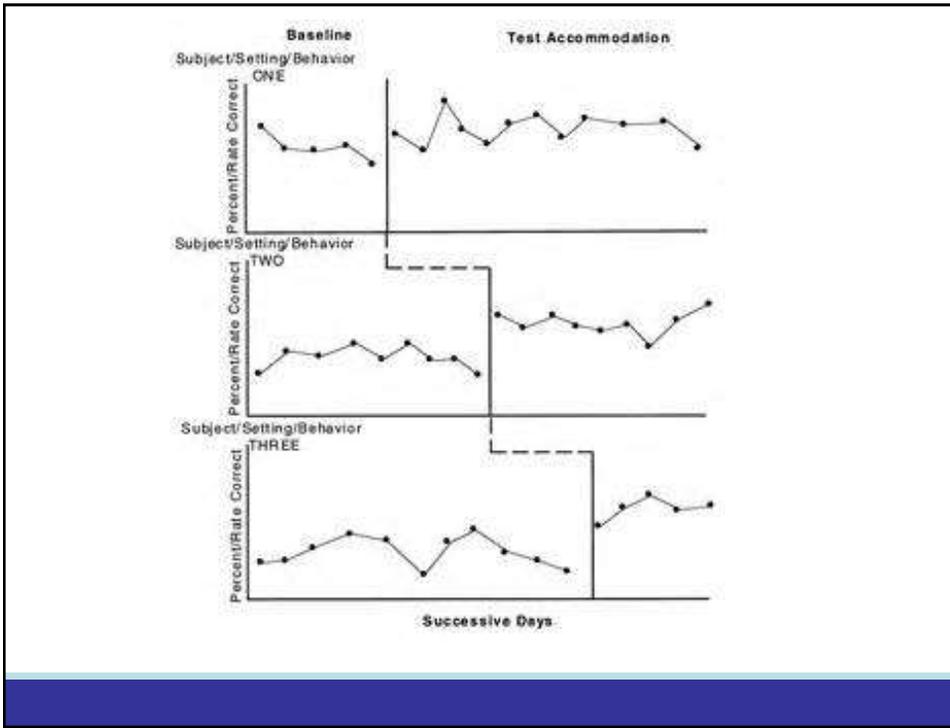
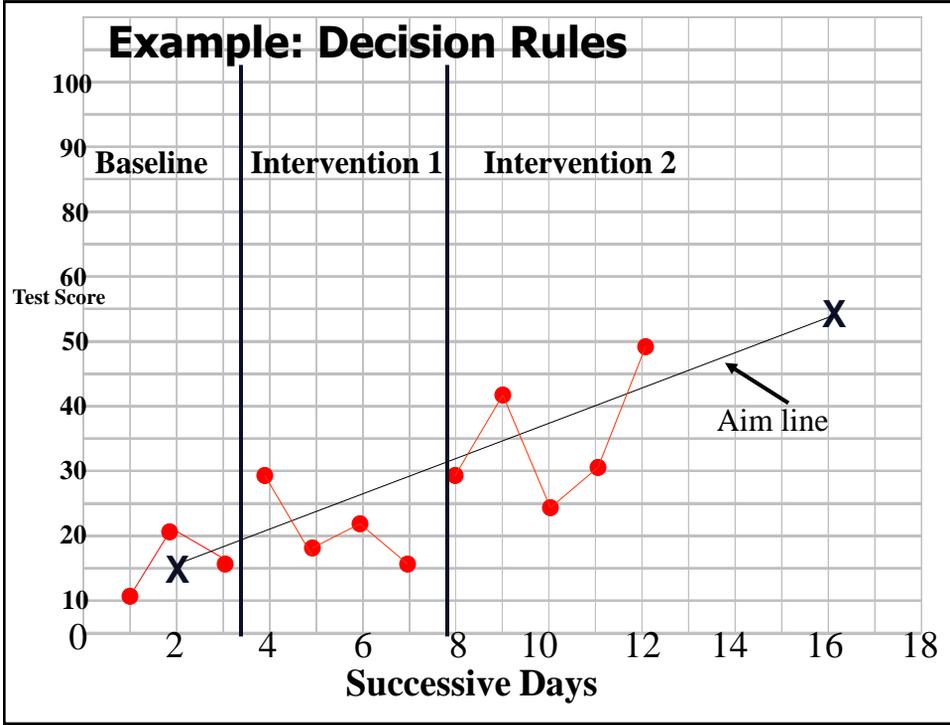
- Graphs are very valuable
  - They allow a quick check of how a program or intervention is working
- Tests to determine if things are working:
  - If I change the way I teach, does it consistently change what the student does?
  - Does the intervention function to change behavior?

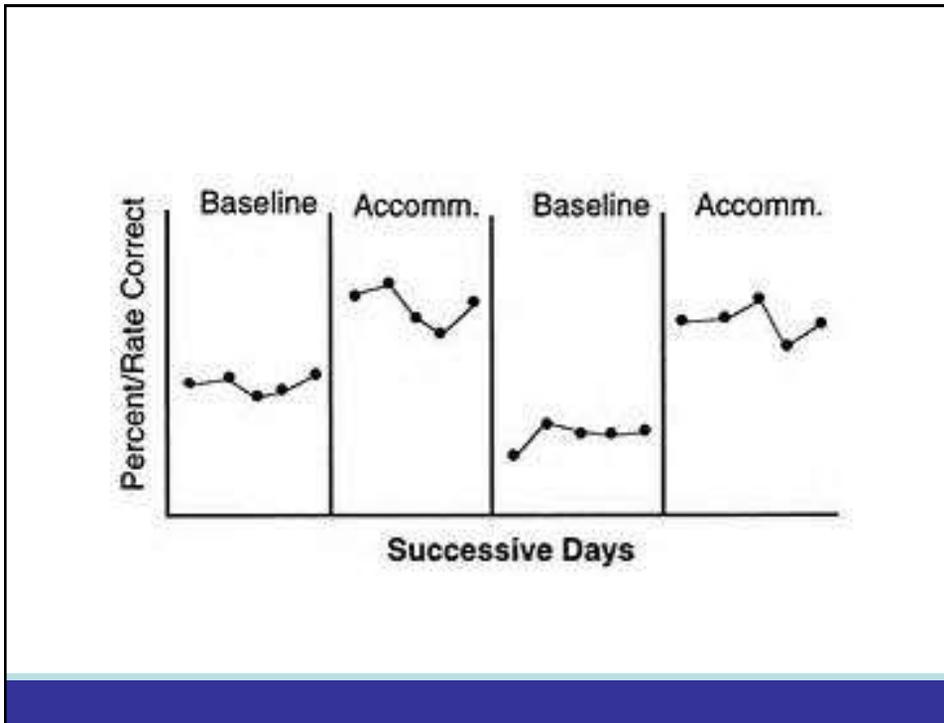
# Interpreting Data and Graphs

- Graphs: Y axis; X Axis
- Graphs: Level, Trend; Variability
  
- Types of studies:
  - Reversals (AB; ABA, ABAB, ABAC, etc)
  - Multiple baseline
  - Changing Criteria
  
- Intergroup Design
  - N (number of participants)
  - Statistical analysis (significance)



**Total Cumulative Skills in 20 weeks: 68 (20 Mand)**





## Treatment Fidelity and Staff Training

- Instruction and data will only result in good outcomes if interventions are implemented with fidelity
- Fidelity of implementation is accomplished through:
  - Competency-based training
  - On site guided practice/feedback
  - Verification of treatment fidelity

**Motor Imitation Procedural Fidelity Checklist**

Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Observer 1: \_\_\_\_\_ Observer 2: \_\_\_\_\_ IOA% \_\_\_\_\_

		YES	NO	N/A
Organization	1. Is instructional area neat and sanitized?			
	2. Does instructor have all materials needed for instruction organized and ready?			
	3. Does instructor have a variety of valuable reinforcers available?			
Teaching Procedures	4. When teaching, does instructor present the S <sup>D</sup> and prompt the correct response?			
	5. Once the student complies with the prompt, does the instructor re-present the S <sup>D</sup> with no prompt or a faded prompt (transfer trial)?			
	6. Is transfer trial followed by distractor(s)?			
	7. Following distract trials, does the instructor re-present the S <sup>D</sup> with no prompt or a faded prompt as presented in transfer trial (check trial)?			
	8. Does instructor model the action to be performed for the prompt, transfer and check trials?			
	9. Does instructor reinforce at set VR schedule? VR: _____			
	10. Does instructor use a prompt that results in correct response?			
Error Correction	11. Does instructor differentially reinforce (better reinforcement) target responses?			
	12. Does instructor end the trial and ensure student is in neutral position (use ready hands if needed)?			
	13. Does instructor re-present the S <sup>D</sup> and prompt the correct response?			
	14. Does instructor prompt student if no response occurred within 2 seconds for a previously mastered item?			
15. Does instructor model the action to be performed for the prompt, transfer and check trials during error correction?				
Notes:				
		____/15 Percentage of Y's:		

## Session on Treatment Integrity

- 18 Mike Miklos: Treatment Integrity

## Social Skills

- Most social skills involve communication
- Language instruction is social skill training
- Peer to Peer manding often a place to start
- Evidence based methods of addressing complex social skills is important
- Look for interventions that avoid rote learning.

## Sessions on Social Skill Training

- #34 Jolin Jackson: Social Skills
- #44 Judah Axe: Teaching problem solving to increase academic, communication, and social skills

## Behavior management

- FBA
- PBSP
- Function Based
  - Motivation
  - Competing skill
  - Making PB ineffective and inefficient
- Video 13

## Sessions on Behavior Management

- 20 Douglas Greer: Building Social Reinforcers are Key to Children's Social and Educational Prognosis
- 46 Timothy Vollmer: The concept of automatic reinforcement-implications for assessment and treatment
- 47 Willow Hozella: Behavior basics
- 53 Eb Blakely: Clinical Practice: escape/avoidance hierarchies, occupational therapy procedures, and self control
- 63 Jonathan Ivy: creating and maintaining a token economy: current research and best practice

## Life skills and Activities of Daily Living

- Functional Approach
- These are critical skills: becoming toilet trained, for instance, alters likely trajectory
- Safety skills in this day!

## Sessions on Life Skills and Activities of Daily Living

- 46 Cathleen Piazza: A comparison of modified sequential oral sensory approach to ABA approach in the treatment of selectivity in children with ASD
- 68 and 76 Laura Eiseman, et. al.: Activities of Daily Living

## Transition Programming

- As children enter middle and high school it is critical to begin planning for the transition to life, career and education opportunities beyond public education.
- Programming for these opportunities remains rooted in evidence base.

## Sessions Related to Transition and Career and College Ready

- 43 Tanya Regli: K12 College Career coordinated pathway
- 54b Jane Theirfield Brown: Collaboration and transition from high school to college and work
- 75 Jim Connell: Links between secondary services and adult services

## Sessions on Early Intervention

- 23 Mary Mikus, Kim Herb and Lisa Gragg: How to enhance your child's inclusion in early care/early education and the community setting
- 35 Merle Crawford and Barb Weber: Intervention with Young Children with autism: supporting families and using routines to facilitate development
- 40 Giacomo Vivanti: Early Start Denver Model
- 50 Heidi Wettlaufer and Laurie Regan: Autism Navigator

## Teaching Speech and Articulation Skills

- 25 Jaime Baker, Amy Foor, Heather Forbes, Debi Namey, Sheri Sauer: Role of SLP in the Autism Support classroom guided by ABA: Interprofessional collaboration

## Don't Forget!!

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- Session : International Panel
  - Carbone, degli Espinosa, Sierocka, Dipuglia
- Session : Posters!
- Session : Closing Keynote! Bill Heward

Remember: PATTAN staff are here to help! If you have any questions or concerns, please ask!

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- Thank you for attending this session and I hope you have a productive and enjoyable conference experience!

## Contact Information

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