**NSTA 2012**

**SC-3: Using Learning Progressions to Improve Science Teaching and Learning**

Thursday, March 29, 1:00-5:00 pm, Fisher Ballroom A, Omni Severin Hotel

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|  | **Goals** | **Objectives** |
| 1. | To understand more about the nature, findings, and relevance of learning progressions research | * You will be able to explain to a colleague what a learning progression is, and why learning progressions are relevant to science teaching and learning * You will have greater understanding of how learning progressions underlie the *Framework for K-12 Science Education* and the *Next Generation Science Standards* |
| 2. | To apply resources from learning progressions research to classroom formative and summative assessment | * You will know more about how learning progressions can be useful to you in interpreting students' thinking |
| 3. | To apply resources from learning progressions research to classroom teaching | * You will know where to find out more about specific learning progressions that are relevant for your own teaching * You will have some concrete examples of successful ways that learning progressions resources have been used in professional development |

**Agenda for the Short Course**

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| Time | Activity | Mode |
| 1:00-1:05 pm | Welcome and Introductions  *Hannah Sevian*, University of Massachusetts Boston | Whole Group |
| 1:05-1:20 pm | Learning Progressions in Context of NSF and Nation  *James Hamos*, National Science Foundation (NSF) | Whole Group |
| 1:20-1:50 pm | Introduction to Learning Progressions Research  *Andy Anderson*, Michigan State University | Whole Group |
| 1:50-2:50 pm | Examining Student Work via Learning Progressions:  Life Sciences Examples from CarbonTIME Project  (*Andy Anderson* and *Jennifer Doherty*) | Groups of 4 Persons |
| 2:50-3:00 pm | BREAK |  |
| 3:00-3:40 pm | Examining Student Work via Learning Progressions:  Physical Sciences Examples from SAMM Project  (*Hannah Sevian*) | Groups of 4 Persons |
| 3:40-4:00 pm | Debrief and Synthesize  (*Andy Anderson* and *Hannah Sevian*) | Whole Group |
| 4:00-4:50 pm | Applications to Instruction and Professional Development  Group 1: CarbonTIME (*Andy Anderson* and *Jennifer Doherty*)  Group 2: SAMM (*Hannah Sevian*)  Group 3: Collaborative Coaching and Learning in Science (*Erin Hashimoto-Martell, Michael Clinchot, Fiona Bennie, Haven Ripley Daniels, Allison Scheff, Pamela Pelletier*) | Split into 3 Groups |
| 4:50-5:00 pm | Evaluation | Individual |

**Contact Information of Short Course Presenters**

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| **Hannah Sevian**  Associate Professor  Department of Chemistry  University of Massachusetts Boston  [hannah.sevian@umb.edu](mailto:hannah.sevian@umb.edu) | **Charles (Andy) Anderson**  Professor  Department of Teacher Education  Michigan State University  [andya@msu.edu](mailto:andya@msu.edu) |
| **James Hamos**  Lead Program Director  Math and Science Partnership Program  National Science Foundation  [jhamos@nsf.gov](mailto:jhamos@nsf.gov) | **Jennifer Doherty**  Postdoctoral Research Associate  Department of Teacher Education  Michigan State University  [dohertyjh@gmail.com](mailto:dohertyjh@gmail.com) |
| **Erin Hashimoto-Martell**  Science Teacher  Hale Elementary School  Boston Public Schools  [ehashimoto@gmail.com](mailto:ehashimoto@gmail.com) | **Haven Ripley Daniels**  Science Teacher  Perkins Elementary School  Boston Public Schools  [havendaniels@me.com](mailto:havendaniels@me.com) |
| **Michael Clinchot**  Science Teacher  Edwards Middle School  Boston Public Schools  [mclinchot2@boston.k12.ma.us](mailto:mclinchot2@boston.k12.ma.us) | **Fiona Bennie**  Middle School Science and Math Teacher  Horace Mann School for the Deaf and Hard of Hearing  Boston Public Schools  [fbennie@boston.k12.ma.us](mailto:fbennie@boston.k12.ma.us) |
| **Allison Scheff**  Project Director  Boston Energy in Science Teaching (Boston Science Partnership Phase II)  University of Massachusetts Boston  [allison.scheff@umb.edu](mailto:allison.scheff@umb.edu) | **Pamela Pelletier**  Senior Program Director, K-12 Science  Boston Public Schools  [ppelletier@boston.k12.ma.us](mailto:ppelletier@boston.k12.ma.us) |