**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
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| 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
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**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 DevelopmentGroup 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 ProfessorDepartment of ChemistryUniversity of Massachusetts Bostonhannah.sevian@umb.edu | **Charles (Andy) Anderson**ProfessorDepartment of Teacher EducationMichigan State Universityandya@msu.edu |
| **James Hamos**Lead Program DirectorMath and Science Partnership ProgramNational Science Foundationjhamos@nsf.gov | **Jennifer Doherty**Postdoctoral Research AssociateDepartment of Teacher EducationMichigan State Universitydohertyjh@gmail.com |
| **Erin Hashimoto-Martell**Science TeacherHale Elementary SchoolBoston Public Schoolsehashimoto@boston.k12.ma.us | **Haven Daniels**Science TeacherPerkins Elementary SchoolBoston Public Schoolshdaniels@bostonpublicschools.org |
| **Michael Clinchot**Science TeacherEdwards Middle SchoolBoston Public Schoolsmclinchot2@boston.k12.ma.us | **Fiona Bennie**Middle School Science and Math TeacherHorace Mann School for the Deaf and Hard of HearingBoston Public Schoolsfbennie@boston.k12.ma.us |
| **Allison Scheff**Project DirectorBoston Energy in Science Teaching (Boston Science Partnership Phase II)University of Massachusetts Bostonallison.scheff@umb.edu | **Pamela Pelletier**Senior Program Director, K-12 ScienceBoston Public Schoolsppelletier@boston.k12.ma.us |