

SSPCT Young Scientists' Workshop Program  
Program (2 days)

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**[date]:**

**[1<sup>st</sup> day]: Wednesday, 28<sup>th</sup> October 2015**

**[2<sup>nd</sup> day]: Thursday, 29th October 2015**

**[Place]: 105 Room, 5 Building, Graduate School of  
Agriculture and Life science /Faculty of Agriculture,**

**The university of Tokyo(東京大学農学部 5号館 105号室)**

**<http://www.a.u-tokyo.ac.jp/campus/overview.html>**

**[Access]:地下鉄南北線、「東大前」駅下車徒歩 1 分**

**[Program]**

<b>1<sup>st</sup> day</b>	
<b>09.15-10.00</b>	<b>Lecture 1.</b> <b>Sample preparation for crystallization. Why do we crystallize? What to think about if you want to crystallize a protein.</b>
<b>10.00-10.30</b>	<b>Coffee break</b>
<b>10.30-11.15</b>	<b>Lecture 2.</b> <b>The basics of crystallization. The three major methods and their phase diagrams</b>
<b>11.15-12.00</b>	<b>Lecture 3.</b> <b>Search strategies to find crystallization conditions. How to do the initial search.</b> <b>Once you have an initial hit, what next?</b> <b>Seeding and other optimization strategies. What if you do not have any hit to optimize? What if you do not have any hit to optimize? What if you do not have any hit to optimize?</b>
<b>12.00-14.00</b>	<b>LUNCH</b>
<b>14.00-16.30</b>	<b>Laboratory experiments</b> <b>1. Vapor diffusion</b> <b>2. Microbatch under oil</b> <b>3. Effects of seeding vs. not seeding.</b>
<b>2<sup>nd</sup> day</b>	
<b>14:00-14.30</b>	<b>Lecture 4.</b> <b>Interpretation of crystallization drop</b>

	<p>phenomena</p> <p>What is the difference between a “good” precipitate and a “bad” one? How do I know what drop is worth optimizing?</p>
14.30-15.30	<p>Laboratory.</p> <p>we will look at the results of yesterday's experiments.</p>
15.30-16.00	<p>Discussion of the laboratory results</p>
16.00-16.20	<p>Lecture 5.</p> <p>Cryocooling of crystals: practical aspects. This lecture will not cover any physics of radiation damage. What it will cover are practical do's and dont's for cryoprotection of the crystals.</p>
16.20-16:30	<p>Final remarks</p>
16:30	<p>END</p>

\*The results have been achieved by “Space Science of High Quality Protein Crystallization Technology—Research Center Initiative“, the Ministry of Education, Culture, Sports, Science and Technology (MEXT), JAPAN.

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