



**ICSG 2002 Satellite Workshop „Cell Free Protein Synthesis“ ,**

**October 7. – 9. 2002, Berlin**

<b>Target Group:</b>	Application Specialists
<b>Duration:</b>	3 days
<b>Location:</b>	Berlin
<b>Language:</b>	English
<b>Trainer:</b>	Michaela Greinwald, Stephanie Ronning, Dr. Sabine Wizemann
<b>Pre-requirements:</b> (enduser level)	Basic molecularbiology knowledge, general computer skills
<b>Training Content:</b>	<b><i>Introduction</i></b>

***RTS Technology***

RTS Standard presentation: RTS 100 HY, RTS 500 HY, RTS 9000 HY, ProteoMaster Instrument  
Template Generation: pIVEX Vectors, RTS Linear Template Generation Set ( Histag, HA-tag),  
ProteoExpert History / Software / Booklet / Website

***Practical Part***

Calculation of a sequence with ProteoExpert  
Generating linear templates with RTS LTGS  
RTS 100 HY with linear templates  
RTS 500 Reaction with labeled AminoAcid

***Wrap Up/Review***





## Schedule for Roche Applied Science – RTS Training

### Monday, October 7

8.30 am	Introduction – Course Outline for Group 1
9.00 am	RTS System Overview: Technology, Kits, Instruments, Template Generation, Applications
11.00 am	Introduction for Lab Session
11:30 am	Generating Linear Templates with the LTGS (1. and 2. PCR) Pipetting of RTS 500 Reaction with labeled AminoAcid
1:00pm	Lunch
2:00 pm	ProteoExpert: Introduction and History
2:45 pm	ProteoExpert: program outline and background Demonstration: Calculation of a Sequence
4:30 pm	Pipetting of RTS 100 Reactions with Linear Templates
5:30 pm	End

### Tuesday, October 8

8:30 am	Group 1 (Lab):Running the SDS Gel for the RTS 100 Reactions; Starting the Western Blot (approx. 1h)
8.30 am	Introduction – Course Outline for Group 2
9.00 am	RTS System Overview: Technology, Kits, Instruments, Template Generation, Applications
11.00 am	Introduction for Lab Session
11:30 am	Generating Linear Templates with the LTGS (1. and 2. PCR) Pipetting of RTS 500 Reaction with labeled AminoAcid
1:00 pm	Lunch
2:00 pm	ProteoExpert: Introduction and History
2:45 pm	ProteoExpert: program outline and background Demonstration: Calculation of a Sequence
4:30 pm	Pipetting of RTS 100 Reactions with Linear Templates
5:30 pm	End

### Wednesday, October 9

8:30 am	Group 2: Running the SDS Gel for the RTS 100 Reactions, Starting the Western Blot Coomassie Gel for RTS 500 Reactions
10:00 am	Discussion of Lab Results
11:00 am	Open Questions
12:00 am	Review
1:00 pm	Lunch
2:00 pm	Group 1: Developing the Western Blot with RTS 100 Reactions, Coomassie Gel for RTS 500 Reactions
3:00 pm	Discussion of Lab Results
4:00 pm	Open Questions
5:00 pm	Viewing Lab Results; Review Hand Out Lab Results for Group 2
5:30 pm	End



"Cell-free protein production" Workshop  
 hosted by S. Yokoyama, P. Umbach,  
 and Roche, held as a satellite to ICSG  
 2002, Berlin, 7-9 Oct 2002, at the  
 central laboratory facility of the Protein  
 Structure Factory.

## Workshop Schedule

Day1	Monday Oct. 7	Day1	Monday Oct. 7
	Benches: A-F; Group: 1-6		Benches: G-L; Group: 7-12
08:00	Open	08:00	Open
08:30	S30 prep.: Thaw cells	08:30	Intro: Course outline
09:00		09:00	RTS Standard Presentation
09:30	Disruption of cells	09:30	
10:00		10:00	
10:30		10:30	
11:00		11:00	Introduction for Lab Session
11:30		11:30	
12:00	(Lunch during the 80 min. preincubation)	12:00	Generating Linear Templates
12:30		12:30	Pipetting of RTS 500 with labeled Amino Acids
13:00		13:00	
13:30		13:30	Lunch
14:00	Dialysis (45min*4)	14:00	ProteoExpert
14:30	RIKEN seminar	14:30	
15:00		15:00	ProteoExpert: program outline and demonstration
15:30		15:30	
16:00	Freeze and Store	16:00	RTS 100 Reactions with Linear Templates
16:30		16:30	
17:00		17:00	
17:30		17:30	
<b>Day2</b>	<b>Tuesday Oct. 8</b>	<b>Day2</b>	<b>Tuesday Oct. 8</b>
08:00		08:00	Collect RTS samples and start to run gel electrophoresis
08:30	Intro: Course outline	08:30	
09:00	RTS Standard Presentation	09:00	S30 prep.: Thaw cells
09:30		09:30	Disruption of cells
10:00		10:00	
10:30		10:30	
11:00	Introduction for Lab Session	11:00	
11:30		11:30	
12:00	Generating linear template	12:00	
12:30	Pipetting of RTS 500 Reaction with labeled Amino Acids	12:30	(Lunch during the 80 min. preincubation)
13:00		13:00	Lunch
13:30	Lunch	13:30	
14:00		14:00	
14:30	ProteoExpert	14:30	Dialysis (45min*4)
15:00	ProteoExpert: program outline and demonstration	15:00	RIKEN seminar
15:30		15:30	
16:00		16:00	
16:30	RTS 100 reactions with linear templates	16:30	Freeze and Store
17:00		17:00	
17:30		17:30	
<b>Day3</b>	<b>Wednesday Oct. 9</b>	<b>Day3</b>	<b>Wednesday Oct. 9</b>
08:00		08:00	Batch rxn using RTS-RIKEN lysate
08:30	Analysis of RTS 100 and RTS 500 reactions	08:30	(during incubation:
09:00		09:00	check S30 [protein] & [nucleic acid])
09:30	Discussion of Lab Results	09:30	CAT assay
10:00		10:00	
10:30		10:30	
11:00	Open Questions	11:00	Discussion of Lab results/ Questions
11:30	Review	11:30	
12:00		12:00	Open Questions
12:30		12:30	
13:00	Lunch	13:00	Lunch
13:30		13:30	
14:00	Batch rxn using RTS-RIKEN lysate	14:00	Analysis of RTS 100 and RTS 500 reactions
14:30	(during incubation:	14:30	
15:00	check S30 [protein] & [nucleic acid])	15:00	Discussion of Lab Results
15:30	CAT assay	15:30	
16:00	Discussion of Lab results	16:00	Open Questions
16:30		16:30	Review
17:00	Open Questions	17:00	