MUGEN 1st Transgenesis
Gene Targeted Mutagenesis Course
Athens, April 10-13, 2006

Course Evaluation Report

1. Introduction

The 1st MUGEN Transgenesis / Gene Targeted Mutagenesis Course was organized by Drs Dimitris Kontoyiannis and George Kollias, at the Biomedical Sciences Research Centre "Alexander Fleming" in Vari, Greece.

The course aimed to diffuse unique knowledge and newly developed methodologies from individual laboratories and the NOE's Transgenesis Core Unit to individual researchers both at pre- and post- doctoral level, offering complementary training in specialized, advanced technologies in transgenic generation and analysis with emphasis on immunology.

The course was widely advertised prior to its commencement. Apart from the online advertisement on the MUGEN (and the Fleming) website, an advert was posted on Nature (paper journal and "Nature Events" website). Invitations and posters of the course were sent out to:
i) participating MUGEN laboratories,
ii) other academic and research institutions,
iii) individual leading researchers.

Interested students were invited to register online at the MUGEN webpage (www.mugen-noe.org) and submit, with their application, a letter of support by their scientific supervisor. After the online registration was closed, late registration was offered to interested students via email.

50 students were registered to attend at the first instance. This was the maximum number of students organizers had agreed to accept, given the highly specialized nature of the course and the need for interaction among students and lecturers. Of these, 46 actually attended the course (with one last minute cancellation and three no-shows). For a list of participants, please see Annex I of this report.

Lectures were delivered by 22 MUGEN laboratories' Group Leaders. Dr. Markus Manz was unable to attend at the last minute due to illness. A list of lecturers is annexed to this report (Annex II).

The Course Programme covered a variety of transgenesis issues. It addressed the basic principles of gene manipulation in the mouse from construct design to phenotypic analysis of transgenic mice. There was also a special focus on transgenic systems in immunology, in order to offer students relevant insights on how to experimentally address their research questions. In addition, the course covered high-throughput platforms of transgenesis and mouse archiving. For a full copy of the course programme, please see Annex III of this report.

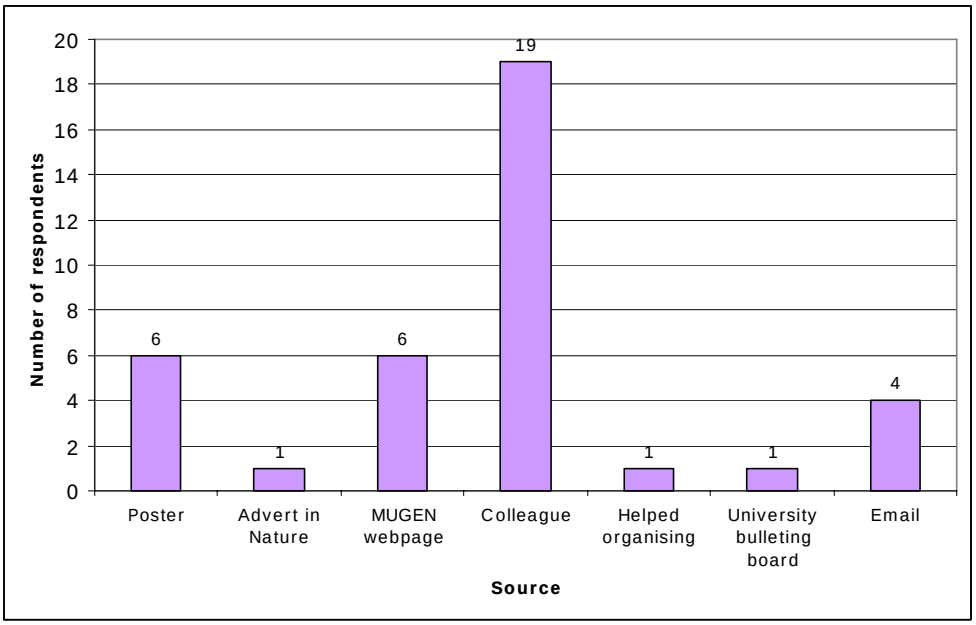
At the end of the four day lecture course, participants and lecturers were asked to complete an evaluation form (Annex IV). Results are presented in detail in the next section.

2. Evaluation Results

Of the 67 participants, 35 completed and returned a questionnaire (52% of the total), 30 participating students and 5 lecturers. Of these, 12 were male and 23 were female. Most of the respondents were PhD students (60%) at their late twenties (26-30 years of age), followed by post doctoral fellows (17%) and senior academics (11%).

It appeared from the responses that most participants heard of the course via one of their colleagues (54%) followed by the advertisement of the course on the MUGEN webpage and the posters sent out by the organizers (both 17%). This indicates that the most effective advertisement for such events is "word of mouth" (which is essentially supported by poster announcements, emails and advertisement on related websites). Graph 1 depicts in detail responses to question 4 ("how did you learn about the course?") of the evaluation questionnaire.

Graph 1: How did you learn about the course?



With regards to the course content, almost all participants responded that it lived up to their expectations or even surpassed them (**94%**), with only 2 participants (6%) suggesting that it would be nicer if it included more practical sessions (in tutorial format).

Almost all participants (32 out of the 35, **91.5%**) responded that both the size and the length of the lectures was appropriate, with only a minority (3 people, a 8.5% of the total respondents) requesting slightly shorter lectures (45 minutes max) followed by a lengthier discussion session. These findings were also reflected in the response of the majority (**91.5%)** of participants and lecturers to question 9 of the questionnaire, who stated that the course offered sufficient opportunity / time for discussion.

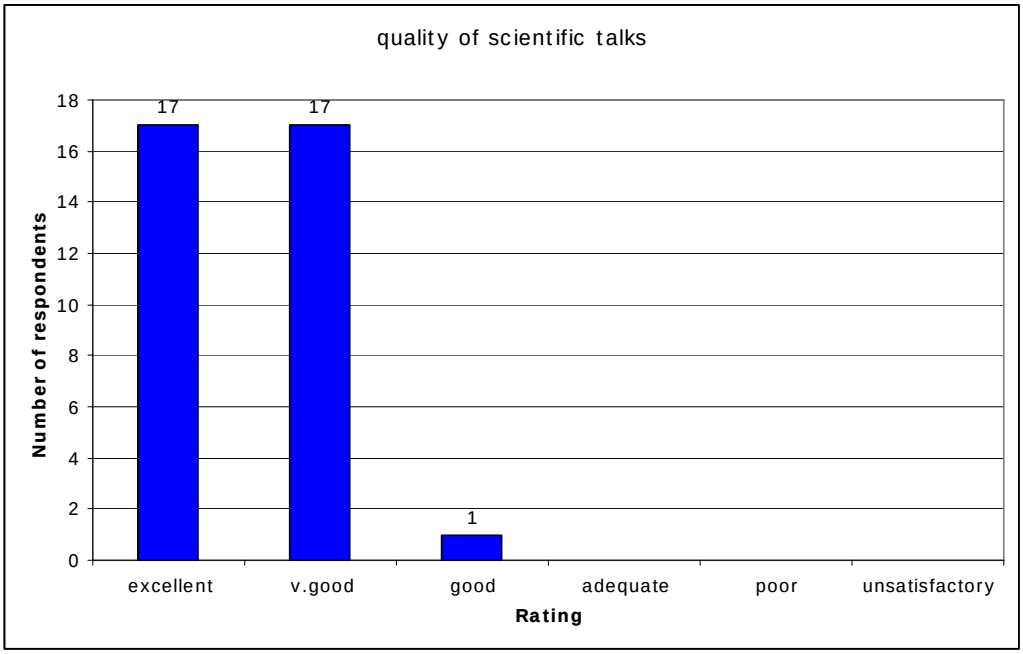
All of the respondents (**100%**) thought that the course offered an excellent opportunity to meet with other participants, including speakers. This tendency was also reflected in question 11 d on the evaluation of the social programme of

the meeting, which was characterized as "**excellent**" by **63%** of the respondents and as "**very good**" by **35%** of the respondents.

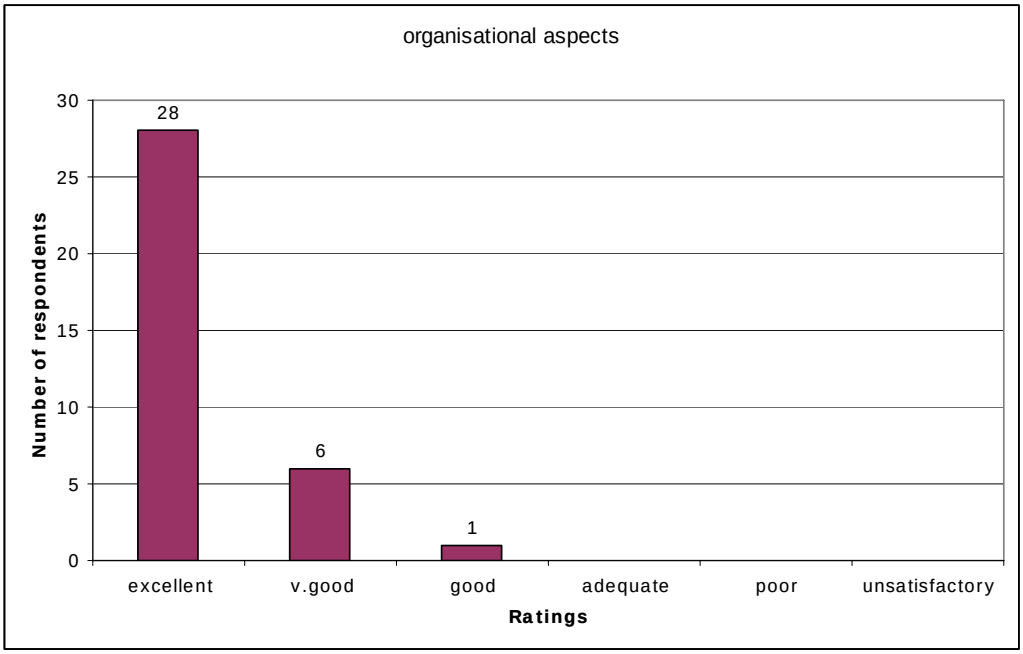
When asked to evaluate in particular which section / lecture(s) of the course they found most helpful, most participants indicated Dr. Alexiou's lecture on the "Principles of Mammalian Genetics and Development" (45.7%) closely followed by Dr. Pasparakis' lecture on "Transgenic animal models for the analysis of intracellular signaling cascades" (42.8%), Dr. Rutz's lecture on the "Application of siRNA technologies to primary cells of the immune system" (34%), Dr. Episkopou's lecture on "Gene Traps" (28.6%) and Dr. Kioussis' lecture on "In Vivo Imaging" (25.7%).

Graph 2 depicts responses to question 11a on the quality of the scientific talks of the course, whereas Graphs 3 and 4 depict responses to questions 11b and 11 c of the evaluation questionnaire respectively.

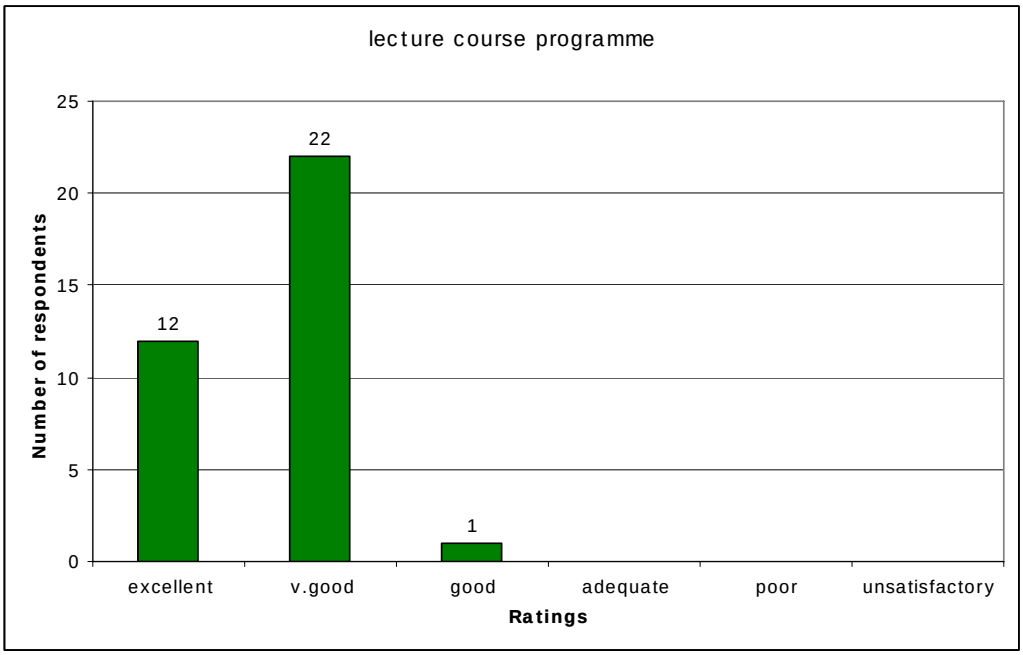
Graph 2: Please evaluate the quality of the scientific talks



Graph 3: Please evaluate the organizational aspects of the course

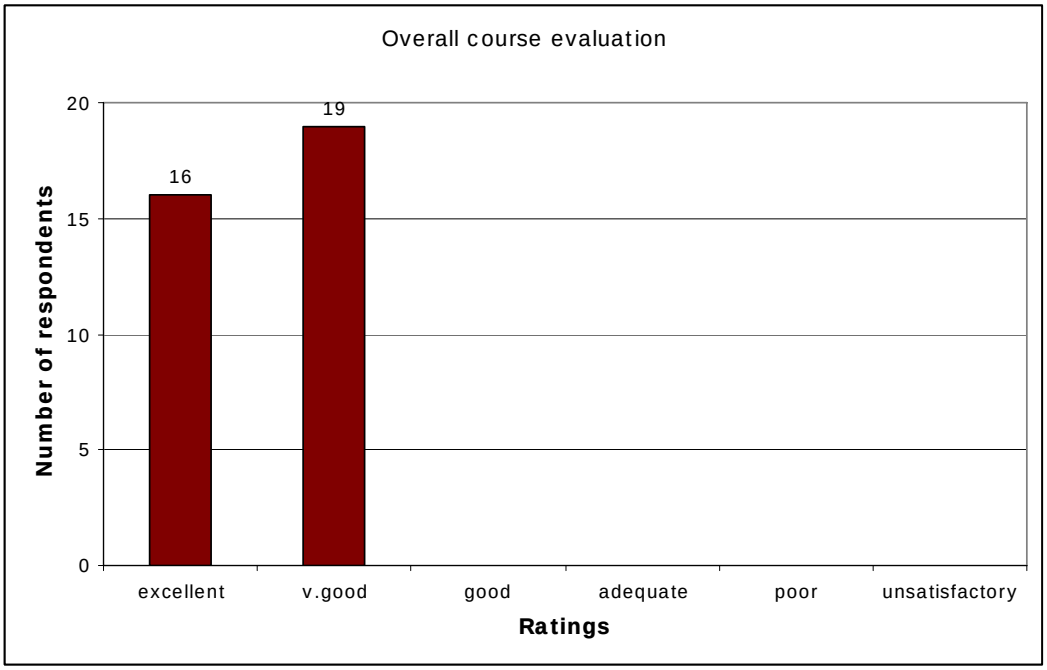


Graph 4: Please evaluate the lecture course programme



As can be seen from the data above as well as data in the Graphs 2-4, the overwhelming majority of respondents were extremely satisfied both with the organization of the course and with its actual content and lecture delivery. Such responses, which were also supported by oral feedback from participants, included comments such as “the course should be repeated”, “thank you for an excellent course” etc. Responses to the overall evaluation of the course are depicted in Graph 5.

Graph 5: Overall evaluation of the course



3. Conclusion

On the whole, the course was characterized as very successful by participants and lecturers alike and there were strong recommendations to repeat it. Most participants did not comment in detail on the lectures or the content of the course. Nonetheless, some early PhD students commented on the high specificity of some lectures, which focused too much on the presentation of research findings without allowing for the theoretical background and, thus, hindered students from following them fully. The organizers also acknowledged the need to further enrich the course, should it be repeated, with some tutorial style classes.

ANNEX I

MUGEN Transgenesis/ Gene Targeted Mutagenesis Course

April 10-13, 2006, Athens, Greece

Participant List – Contact Details

No	SURNAME	NAME	INSTITUTION	CONTACT EMAIL
1	Agallou	Maria	Laboratory of Molecular Immunology, Hellenic Pasteur Institute	mariaagallou@pasteur.gr
2	Bouzarelou	Dimitra	Department of Biology, University of Athens and NCSR Demokritos	dbouzarelou@bio.demokritos.gr
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30	Nikopoulos	George	Maine Medical Centre Research Institute	gnikopou@mac.com
31	Ntokorou	Margarita	Department of Biology, University of Patras	mntokorou@gmail.com
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33	Panoutsopoulos	Alexis	University of Patras	alexpan2004@yahoo.gr
34	Papadaki	Olympia	Biomedical Sciences Research Centre "Al. Fleming"	o.papadaki@fleming.gr
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38	Riemer	Pamela	GBF	pamela.riemer@gbf.de
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45	Thodi	Georgia	Laboratory of Molecular Diagnostics, NCSR Demokritos	gt3535@mbg.duth.gr
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ANNEX II

MUGEN Transgenesis / Gene Targeted Mutagenesis Course, April 10-13, 2006, Athens, Greece

List of Lecturers – Contact Details

SURNAME	NAME	INSTITUTION	EMAIL
Kollias	George	FLEMING	g.kollias@fleming.gr
Alexiou	Maria	FLEMING	m.alexiou@fleming.gr
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Manz	Markus	IRB	markus.manz@irb.unisi.ch
Episkopou	Vasso	MRC	vepiskop@csc.mrc.ac.uk
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ANNEX III

MUGEN Transgenesis / Gene Targeted Mutagenesis Course, April 10-13, 2006, Athens, Greece

Course Programme

Monday, April 10, 2006

Basic Principles of gene manipulation in the mouse

9.00 – 9.30	**Registration / Coffee**		
9.30 – 10.30	Overview: Transgenic systems in gene discovery and validation	*G. Kollias*	FLEMING
10.30 – 11.00	**Coffee Break**		
11.00 – 12.30	Principles of Mammalian Genetics and Development	*M. Alexiou*	FLEMING
12.30 – 13.30	Conditional Gene Targeting	*M. Schmidt-Supprian*	CBR
13.30 – 14.30	**Lunch Break**		
14.30 – 15.30	In Vivo Imaging	*D. Kioussis*	MRC
15.30 – 16.00	**Coffee Break**		
16.00 – 17.00	Novel Approaches to Transgene Design and Construction	*D. Graf*	FLEMING
17.00 – 18.00	New Perspectives in genome Engineering	*A. Economides*	REGENERON
18.30 – 20.00	**Dinner Reception at Fleming**		

Tuesday, April 11, 2006

Transgenic Systems for the Analysis of Immune Responses

9.00 – 10.00	Defining the basis of immunological disease through the analysis of genetic susceptibility	*K. Gelderman*	ULUND
10.00 - 11.00	Mouse models for analyzing antigen representation	*N. Garbi*	DKFZ
11.00 – 11.30	**Coffee Break**		
11.30 - 12.30	Analyzing the specificity of adaptive immune responses: Tolerance	*M. van den Broek*	EXPIMMZH
12.30 – 13.30	Dynamics and function of langerhans cells in vivo	*A. Kissenpfennig*	CNRS
13.30 – 14.30	**Lunch Break**		
14.30 – 15.30	Calcium dependent shaping of T cell activation	*F. Grassi*	IRB
15.30 – 16.00	**Coffee Break**		
16.00 – 17.00	Transgenic animal models for the analysis of intracellular signaling cascades	*M. Pasparakis*	EMBL
17.00 – 18.00	Analyzing Innate Immunity	*C. Garlanda*	HUMANITAS
18.30 – 20.00	**Dinner Reception at Fleming**		

Wednesday, April 12, 2006

Transgenic Systems for the Analysis of Immune Responses

9.00 – 10.00	Infections in mouse mutants deficient in cytokine / cytokine receptor genes	*W. Muller*	GBF
10.00 - 11.00	Schematic analysis of immune effector functions in infection and transplantation	*S. Beer*	UNI DUESS
11.00 – 11.30	**Coffee Break**		
11.30 - 12.30	Application of siRNA technologies to primary cells of the immune system as an alternative to generate transgenic animals	*S. Rutz*	DRFZ
12.30 – 13.30	Two photon Imaging	*P. Bousso*	PASTEUR
13.30 – 14.30	**Lunch Break**		
14.30 - 15.30	Transgenic animal models for the analysis of immune gene expression	*D. Kontoyiannis*	FLEMING
15.30 – 16.00	**Coffee Break**		
16.00 – 17.00	Transgenic Animal Models in cancer research	*M. Nawijn*	NKI-AVL
17.00 - 18.00	Humanized Mice	*M. Manz*	IRB
18.30 – 21.00	**Dinner**		

Thursday, April 13, 2006

High Throughput Mutagenesis

9.00 – 10.00	Gene Traps	*V. Episkopou*	MRC
10.00 - 11.00	Random ENU Mutagenesis	*E. Douni*	FLEMING
11.00 – 11.30	**Coffee Break**		
Mouse Resources			
11.30 – 12.30	Resources for genetically engineered mice	*R. Matteoni*	EMMA
12.30 – 13.00	Closing Remarks	*G. Kollias*	FLEMING
13.00 – 14.00	**Buffet Lunch**		

ANNEX IV

MUGEN 1st Transgenesis
Gene Targeted Mutagenesis Course
Athens, April 10-13, 2006

Course Evaluation Questionnaire

We kindly ask you to fill in this questionnaire. The organizers will collect it at the end of the course. Thank you for your help!

_____

1. **Please specify**

   a.) age: under 25 ☐ 26-30☐ 31-35 ☐ 36-40☐ +40☐

   b.) gender: male ☐ female ☐

   c.) nationality: _____

2. **Please tick the box which most accurately describes your position:**

   Senior Academic ☐ Postdoctoral Fellow ☐ PhD Student ☐

   Industry☐ Other ☐

3. **Were you a speaker or a participant?**

   speaker ☐ participant ☐

4. **How did you learn about the lecture course?**

   Poster ☐ MUGENwebpage ☐

   Advert in Nature ☐ From a colleague ☐

   Other source* ☐

   ***Please specify:**

   _____
   _____

5. **Did the lecture course live up to your expectations?**

   yes ☐ no ☐

   Comments:

   _____
   _____

6. **Was the size of the lectures appropriate?**

   yes ☐ no ☐

   Comments:

7. **Was the length of the lectures appropriate?**

yes ☐ no ☐

Comments:

_____
_____

8. Was there adequate opportunity to meet other participants, including speakers?

yes ☐ no ☐

Comments:

_____
_____

9. Was there sufficient time for discussion?

yes ☐ no ☐

Comments:

_____
_____

10. Which lectures did you find particularly helpful?

_____
_____

11. Please give your (overall) evaluation of:

a.) the quality of the scientific talks at the lecture course

Excellent ☐ Very Good ☐ Good ☐ Adequate ☐ Poor ☐ Unsatisfactory ☐

b.) the organizational aspects of the lecture course

Excellent ☐ Very Good ☐ Good ☐ Adequate ☐ Poor ☐ Unsatisfactory ☐

c.) the lecture course programme

Excellent ☐ Very Good ☐ Good ☐ Adequate ☐ Poor ☐ Unsatisfactory ☐

d.) the social programme of the course (lunches and dinners)

Excellent ☐ Very Good ☐ Good ☐ Adequate ☐ Poor ☐ Unsatisfactory ☐

12. Overall Course evaluation:

Excellent ☐ Very Good ☐ Good ☐ Adequate ☐ Poor ☐ Unsatisfactory ☐

13. We would appreciate any additional comments or suggestions:

_____
_____

Thank you very much for your input!