GTRV SUMMER SCHOOL
Oligonucleotide-based strategies to control gene expression: delivery issues

September 6-8, 2007
Hôtel Mercure
LA GRANDE MOTTE, FRANCE

Local organizing committee
Bernard Lebleu, Gilles Divita, Alain Thierry, Sylvie Bégu
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Format
12 invited lectures (45 min with discussion), 15 short communications (20 min with discussion) selected from abstracts submitted by participants and a round-table

Programme

Session 1 Thursday 6, afternoon
Chairpersons : M. Gait, B. Lebleu

2:00 pm Welcome/Introduction (B. Lebleu, U. Montpellier 2)
2:15 pm Chemical synthesis of ODN and siRNA (I. Rudloff, Eurogentec, Liège)
3:00 pm Aptamers for in vivo imaging (B. Ducongé, CEA, Orsay)
3:45 pm Delivery issues for immunostimulatory Toll-like receptor agonist oligonucleotides (A. Vicari, Coley Pharm., Toronto)
4:30 pm Coffee break
5:00 pm Different strategy for an efficient delivery of an oligonucleotide decoy to NF-kB (G. De Rosa, Univ. degli Studi di Napoli Federico II, Italy)
5:20 pm Chemoselective oxime ligation : an useful tool for preparation of nucleic acids conjugates (N. Spinelli, Univ. J. Fourier Grenoble)
5:40 pm A versatile synthesis of oligodeoxyribonucleotide-oligospermine conjugates (M. Kotera, Univ. Louis Pasteur Strasbourg)
6:00 pm A novel way of attaching functional entities to plasmid DNA for the purpose of DNA vaccination & immunotherapy (M. Hasan Karolinska Univ. Hospital Stockholm)
6:20 pm Title to be annonced (B. Pitard, InCellArt, Nantes)

8:30 pm Banquet
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Session 2 Friday 7, morning
Chairpersons: S. Capancioni, S. Begu

8:30 am  Chemical strategies for systemic delivery of siRNAs and Antagomirs (M. Manoharan, Alnylam, Cambridge, USA)
9:15 am  Liposomal formulation of siRNA for RNA interference in vivo (A. Santel, Silence Therapeutics, Berlin)
10:00 am  Coffee break
10:30 am  Enhanced Silencing of EGFR by Photochemical Internalization: a Strategy to Facilitate the Endosomal Escape of siRNA (S. Oliveira, Utrecht Inst. for Pharmaceutical Sciences, Utrecht)
10:50 am  Influence of buffer systems and sequence of siRNA on size and stability of polyplexes (O. Merkel, Philipps-Univ. Marburg, Germany)
11:10 am  Loading of PEGylated siRNA lipoplexes on microbubbles restores their siRNA delivery capacity in the presence of ultrasound (R.E. Vandenbroucke, Univ. Gent, Belgium)
11:30 am  Efficient formulation of small interfering RNA targeting proinflammatory cytokines in experimental arthritis (M. Khoury, INSERM U.844, Montpellier)
11:50 am  Electro-transfer in vitro and in vivo of siRNA in tumoral cells (M. Golzio, IPBS CNRS Toulouse)
12:30 am  Lunch

Session 3 Friday 7, afternoon
Chairpersons: N. Mignet, A. Thierry

2:00 pm  siRNAs: from polyplexes to single molecules (J.-S. Remy, U. Strasbourg)
2:45 pm  Efficient and selective gene silencing in mammalian cells using picomolar siRNA concentrations. (P. Erbacher, Poly Plus, Strasbourg)
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3:30 pm  Nanoparticles for the delivery of oligonucleotides targeting junction oncogenes (C. Malvy, IGR Villejuif)
4:15 pm  Coffee break
4:45 pm  Highly efficient delivery of siRNA to the solid tumor by targeted LPD nanoparticles (L. Huang, U. North Carolina, USA)
5:30 pm  Formulation of DNA nanoparticles using a new class of amphiphilic condensing agents for the purpose of non-viral gene therapy (J. R. Viola, Karolinska Inst., Stockholm)
5:50 pm  Nucleoamphiphiles at work: from supramolecular assemblies to transfection (P. Barthelemy, Univ. Victor Segalen Bordeaux 2)
6:10 pm  Successful cellular delivery of antisense oligonucleotides and siRNA using chitosan modified PLGA nanoparticles as gene carrier for the treatment of lung cancer (N. Nafee, Saarland Univ., Saarbruecken, Germany)
6:30 pm  Monitoring complex integrity of siRNA containing nanoparticles using fluorescence fluctuation spectroscopy (K. Buyens, Gent Univ., Belgium)

Evening free for participants

Session 4 Saturday 8, morning
Chairpersons: D. Betbeder, G. Divita

9:00 am  Peptide conjugation for cell delivery of ON and siRNA: methods and outcomes (M. Gait, MRC Cambridge, UK)
9:45 am  Peptide-based delivery of steric block ON (B. Lebleu, U. Montpellier 2)
10:30 am  Coffee break
11:00 am  Peptide-based nanostructure for ex-vivo and in vivo delivery of siRNA (G. Divita, CRBM, Montpellier)
11:45 am  Round-table on perspectives of ON-based therapeutics (moderator: P. Casellas, Sanofi-Aventis, Montpellier)
12:30 am  Lunch
Communications

Participants wishing to be considered for the presentation of an oral communication should submit a one-page abstract to Prof. B. Lebleu at blebleu@univ-montp2.fr before 15 June 2007. Selection of oral communications will be made by the organizing committee before 30 June 2007. No poster presentation will be possible.

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Registration Fees
(including accommodation and breakfast on Thursday and Friday, coffee breaks, lunches on Friday and Saturday)

Students 500 €
Academics 600 €
Industrials 700 €

Information

Registration : Dr. Sylvie BEGU : sylvie.begu@enscm.fr
Programme : Pr. Bernard LEBLEU : blebleu@univ-montp2.fr

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