

Nucleic Acids Research Group (NARG)

Presentation of 2002 Mini-Survey
and Open Discussion



NARG members

Tony Yeung(chair)

Greg Buck

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Kathy Mills

Stephen Scaringe

Fox Chase Cancer Center

Virginia Commonwealth University

HHMI at UC San Francisco

NCID/CDC

Millennium Pharmaceuticals Inc.

Dharmacon Research, Inc.

Ad hoc members

Kathryn Lilley (MARG)

Pamela Scott Adams (FARG)

Ted Thannhauser (DSRG/EB)

Susan Hardin (new EB liason)

University of Cambridge

Trudeau Institute

Cornell University

University of Houston

Agenda

- Information about the NARG
- “NARG 2002 Mini-Survey Results”
by Martha Gunthorpe
- Open Discussion-Audience
- “High-Throughput Oligonucleotide Synthesis:
Linker Phosphoramidite Reagents and Tandem
Synthesis” by Richard T. Pon



NARG Mission Statement

- To examine current trends of oligonucleotide-based technologies and synthesis chemistries
- To facilitate the use of oligonucleotide-based technologies in research
- To assist member laboratories in self-evaluation and growth
- To promote, encourage, and recognize excellence in member laboratories



Our History

- 1991 - **NARG established**
- 1993 - Core facility survey
- 1995 - Accuracy of automated DNA sequencing
- **DSRG established**
- 1996 - Synthesis of a primer, CE analysis and use as sequencing primer
- 1997 - Sequencing primer design
- 1998 - Core facility survey
- 1999 - Modified primer study (internal)
- 2001 - Survey and homopolymer study



2001 Study is available online

[http://www.abrf.org/index.cfm/group.show/
NucleicAcids.32.htm](http://www.abrf.org/index.cfm/group.show/NucleicAcids.32.htm)

Or

<http://www.abrf.org> and select Research Groups and
Nucleic Acids



Membership Obligations

1. Monthly conference calls
2. Participation

Intellectual: ideas and methods

Activities: this is up to you and also
what you can offer at the time

Interested?

Email

at_yeung@fccc.edu



NARG 2002 Mini- survey

Obtain list from ABRF
directory (2000/2001) and
ABRF website



Check for multiple names
and narrow down to one per
facility



Check internet for current
info-Corrections/new people



Returned mail:



EMAIL



Started with about 111



Total responses: 69



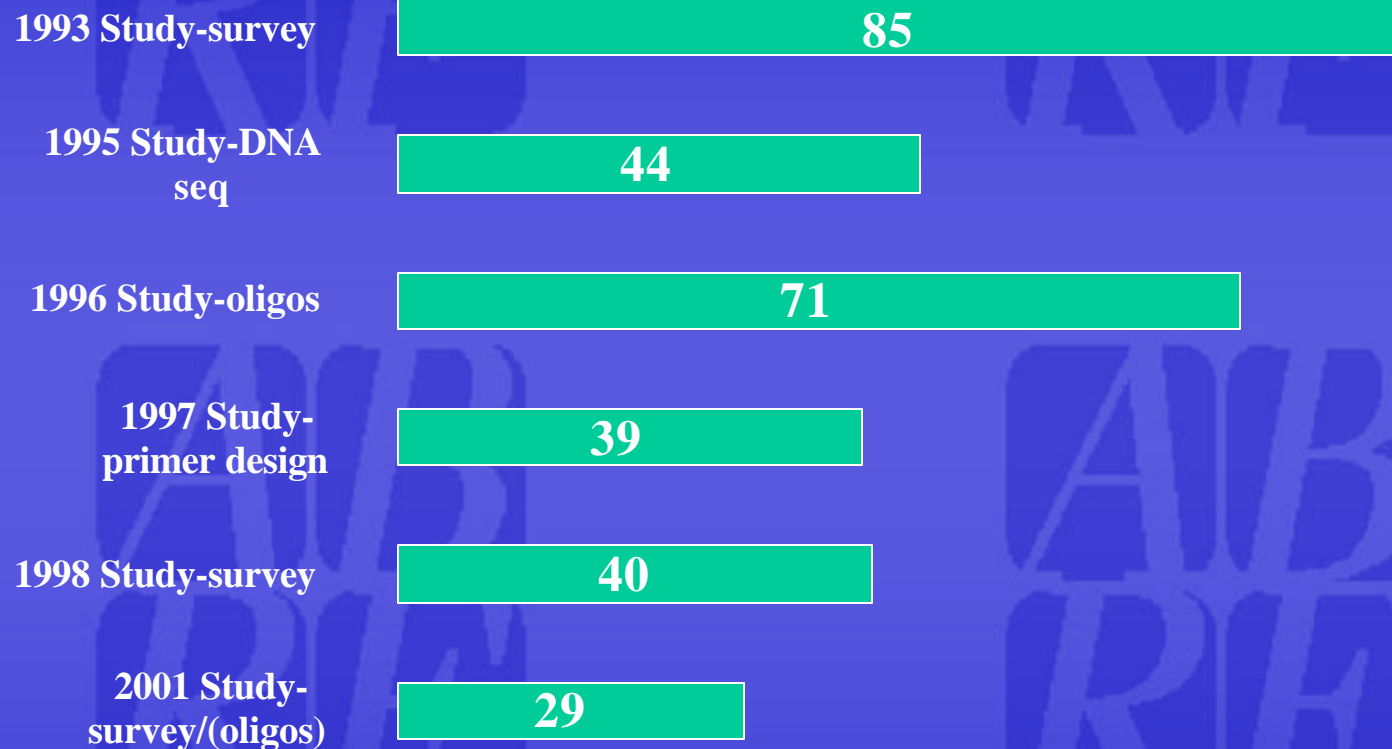
Questions in Mini-survey

(reduced version)

- 1. Is your lab still synthesizing oligonucleotides? If no, why not?**
- 2. Do you currently synthesize FRET probes (fluorescence Resonance Energy Transfer: Taqman, Molecular Beacons, etc.)?**
- 3. Are there real time PCR machines at your institute?**
- 4. Do you anticipate the need to synthesize these types of probes within the next year?**
- 5. Would you be willing to participate in our study for 2002?**
- 6. Are you interested in serving as a member of NARG?**



Past Participation Levels



2002 Facility Participation Levels

Total responses

69

DNA Synthesis

48

Participate in future studies

37



Real-Time PCR Interests

Real-time PCR machines

49

Current FRET probe
synthesis

17

Future synthesis of
FRET probes

29



Two Great Comments

1. **“We refuse to give in to custom houses! We are also our largest oligo user for DNA sequencing projects, so its much more convenient to make them ourselves”**
2. **It is a group that I have gotten a lot of useful info from, though, and someday I’d like to pay that back.”**



Conclusions

- 1. DNA synthesis facilities continue to exist.**
- 2. Participation levels do not reflect number of existing facilities.**
- 3. Real-time PCR instruments are prevalent and interest in synthesizing FRET probes is expected to increase.**



Acknowledgements

NARG members

Kathryn Lilley for slide background

Email survey respondents



Open Discussion

(6 gifts for participation/ one with a really nice goodie...)

Possible ideas:

1. siRNA synthesis study
2. FRET Probe synthesis
3. Ideas?



Invited speaker

High-Throughput Oligonucleotide Synthesis: Linker Phosphoramidite Reagents and Tandem Synthesis

Richard T. Pon

University of Calgary
Former NARG member

