

Project-Based Learning at KGI

SoCal Bio Human Resource Conference

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KGI's Master of Bioscience Two-year Curriculum

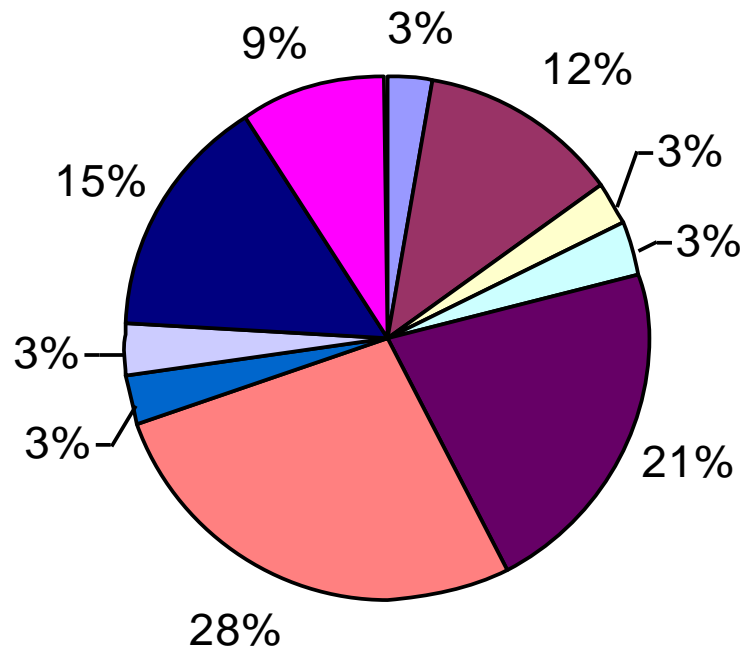
- Core training - year 1
 - Science and Engineering: Systems and Computational Biology, Medical Devices and Diagnostics, Biopharmaceutical Discovery, Development and Manufacturing
 - Professional: Bioscience Business Organization, Marketing/Strategy, Finance, Bioethics
- Internship
- Focused training - year 2
 - Primary courses in career-oriented focus area
 - Elective courses in career-oriented focus area
 - **Team Master's Project**

KGI's Five Focus Tracks

- Business of Bioscience
- Bioprocessing
- Medical Devices and Diagnostics
- Biopharmaceutical Discovery and Development
- Clinical and Regulatory Affairs

Internships – Class of 2007

Functional Areas - Summer 2006



- Advertising
- Business Development
- Consulting
- Technology Transfer
- Manufacturing / Operations
- Marketing / Market Research
- Product Management
- Project Management
- Regulatory Affairs
- Research

Team Master's Project: The Capstone Experience

- Interdisciplinary project: science/engineering + management/ethics
- Financially supported by an industry sponsor
- Teams of 3-5 students,
- industry liaison, faculty adviser
- Students direct and create project, timeline, budget and business plan
- Confidential and non-confidential presentations



Four Critical Ingredients in

Teams

- **Individual and collective outcomes sought**
- **Metrics of success**

Goals

- **Deliverables**
- **Accountabilities**
- **Norms**
- **Expectations**

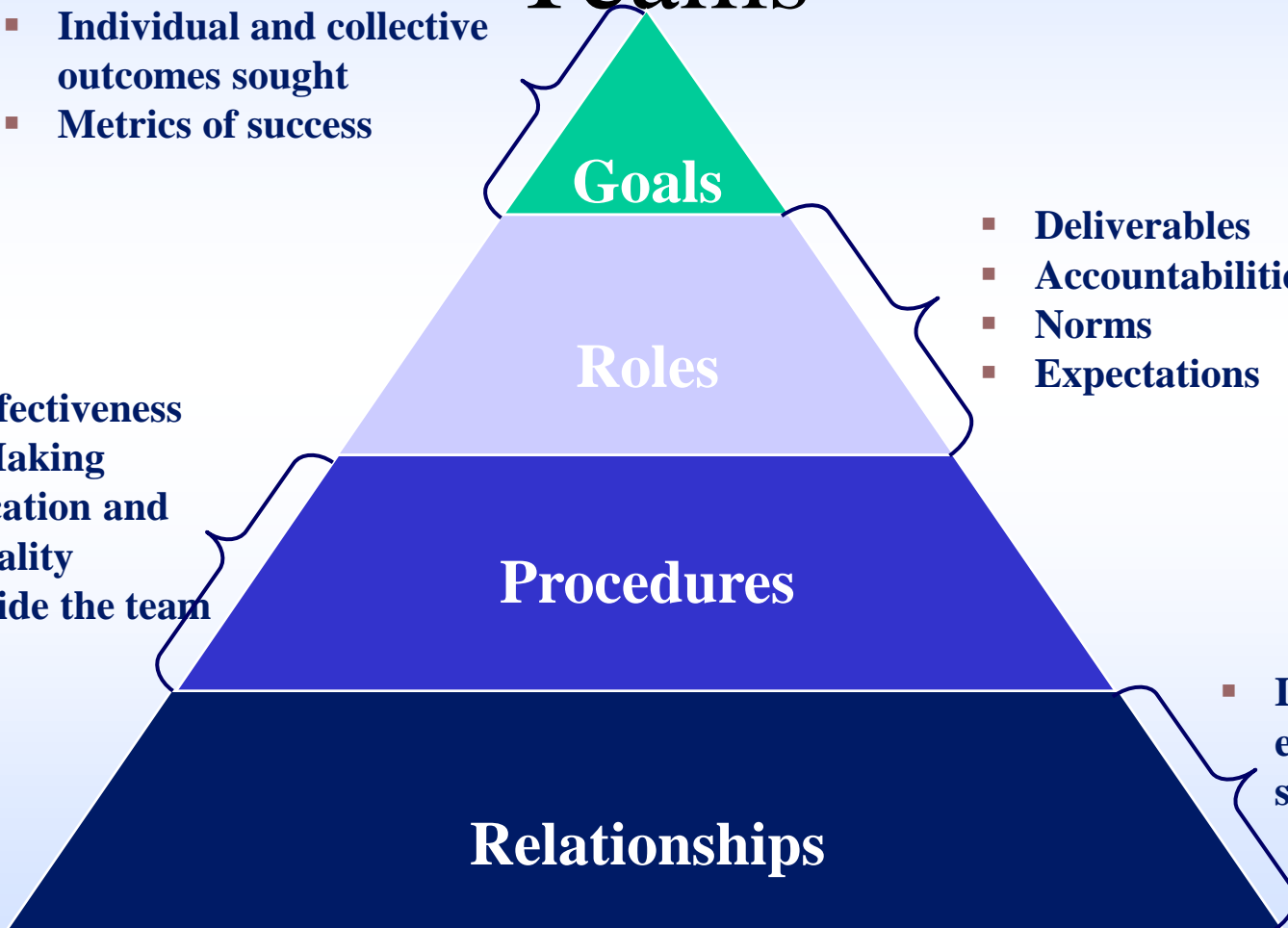
Roles

- **Meeting effectiveness**
- **Decision Making**
- **Communication and Confidentiality inside/outside the team**

Procedures

- **Interpersonal effectiveness skills**

Relationships



KGI Team System

Team Selection and Management

Team Launch

- MBTI
- Framing

Team Check-in

- 360 peer review
- Informal feedback

Team Celebration

- Presentations
- Tradeshows
- Faculty evaluation
- External evaluation

Team Post-Mortem

- Lessons learned
- Journals

Reflection across Projects

Team Masters Projects 2008-2009 Corporate Sponsors



This year's roster

1. Amylin – Drug delivery technologies
2. Amylin – Manufacturing process development
3. Beckman Coulter – Mass Spectrometry for Clinical Diagnostics
4. Brainscope – EEG for use in clinical trials
5. Clear Springs – Biofuels produced from Algae
6. Dow AgroSciences – Crop trait diagnostics
7. Gilead Sciences – Automated work orders
8. Gilead Sciences – Automated inspection of product
9. Navigant Biotechnologies – Marketing of blood pathogen reduction technologies
10. Ortho Clinical Diagnostics – On-analyzer stability of immunoassays
11. Sterogene Bioseparations – Protein purification from fermentation
12. Syngenta Seeds – Automated high-throughput PCR
13. Theravance – Accelerating drug discovery and development