Biomarker, Imaging, & QOL Studies Funding Program (BIQSFP)

Program Update for CTAC

NIH NATIONAL CANCER INSTITUTE

James H. Doroshow, MD
November 2, 2016

BIQSFP Background:
Implementation of the 2005 CTWG Scientific Quality Initiatives

Goal: Enhance the scientific quality of NCI-funded clinical trials by improving prioritization, funding and standardization of associated biomarker and quality of life studies

Initiative 1: Assure that adequate funding is available for clinical trials involving biomarkers, imaging, and quality of life

Initiative 2: Establish quality control standards for laboratory assays and imaging procedures used in association with NCI-funded clinical trials

Scientific Quality: July 2015 CTAC Assessment

- CTWG Scientific Quality initiatives were achieved; recommended periodic updates to CTAC
  - *Periodic updates on BIQSFP funded projects including the outcomes of trials incorporating BIQSFP funded tests*
  - Periodically assess the status of assay and imaging standards and decide if additional NCI action is needed
  - Advise if BIQSFP policies and procedures should be re-examined to determine if it remains optimally structured

Integral & Integrated Studies

- INTEGRAL
  - Inherent to the design of the trial from the onset
  - Performed in real time for the conduct of the trial
  - CLIA-certified lab
- INTEGRATED
  - Clearly identified as part of the clinical trial from the beginning
  - Identify or validate the clinical utility of assays, imaging tests, or QOL instruments that are planned for use in future trials
  - Designed to test a hypothesis, not simply to generate hypotheses

BIQSFP - Current (2016) Trial Eligibility

- Trials conducted by **NCTN groups and NCORPs**
- Phase 2 (≥100 patients) and 3 **treatment** clinical trials with integral or integrated biomarker or imaging studies
- Phase 3 **cancer prevention** clinical trials with integral or integrated biomarker or imaging studies
- Randomized **symptom science/supportive care** clinical trials with efficacy endpoints
- **Cost-Effectiveness Analysis (CEA)** studies are part of a randomized phase 3 treatment or prevention clinical trial with a comparator arm or a symptom science/supportive care clinical trial with a comparator arm.

Components and Review of BIQSFP Studies

Biomarker
Imaging
QOL
CEA

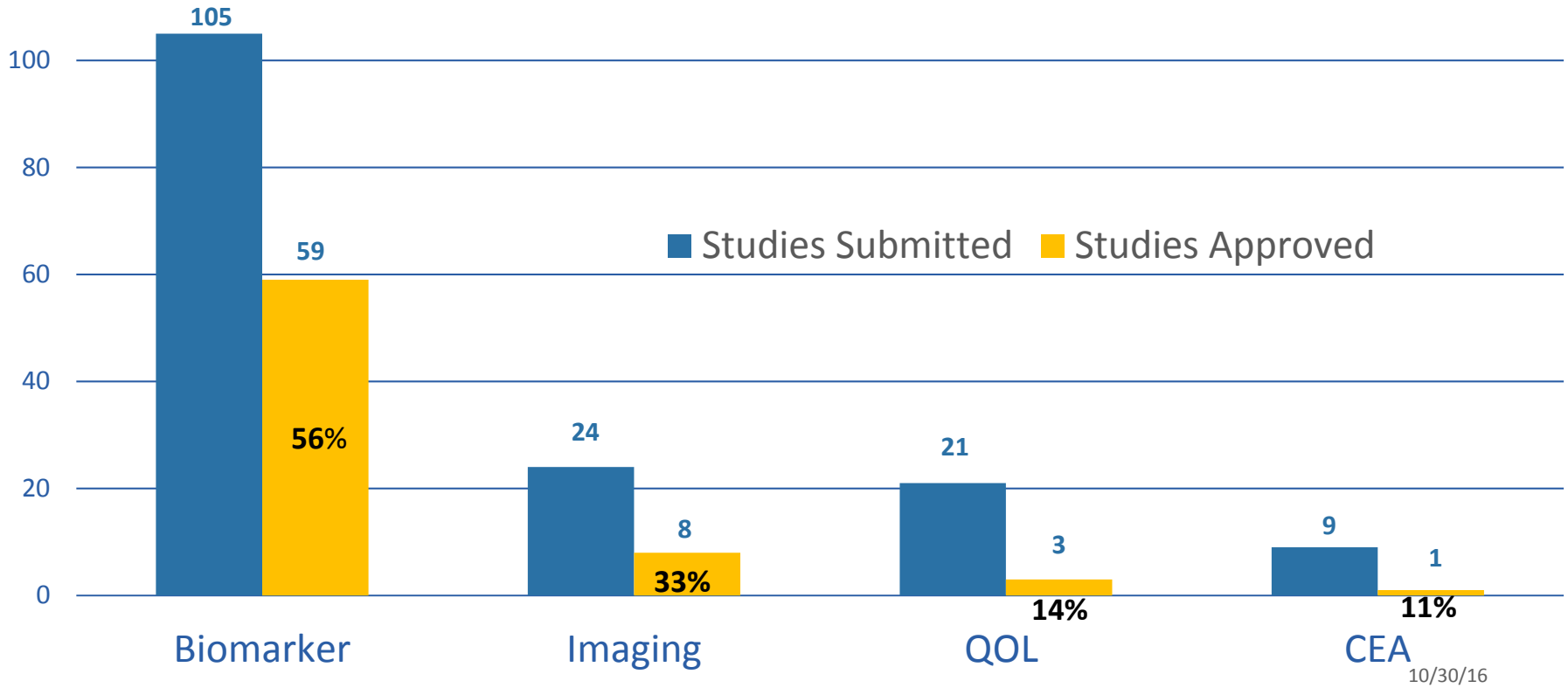
Integral | Integrated

NCI Scientific Steering Committee evaluation

CTROC prioritization and funding approval

Periodic CTAC review

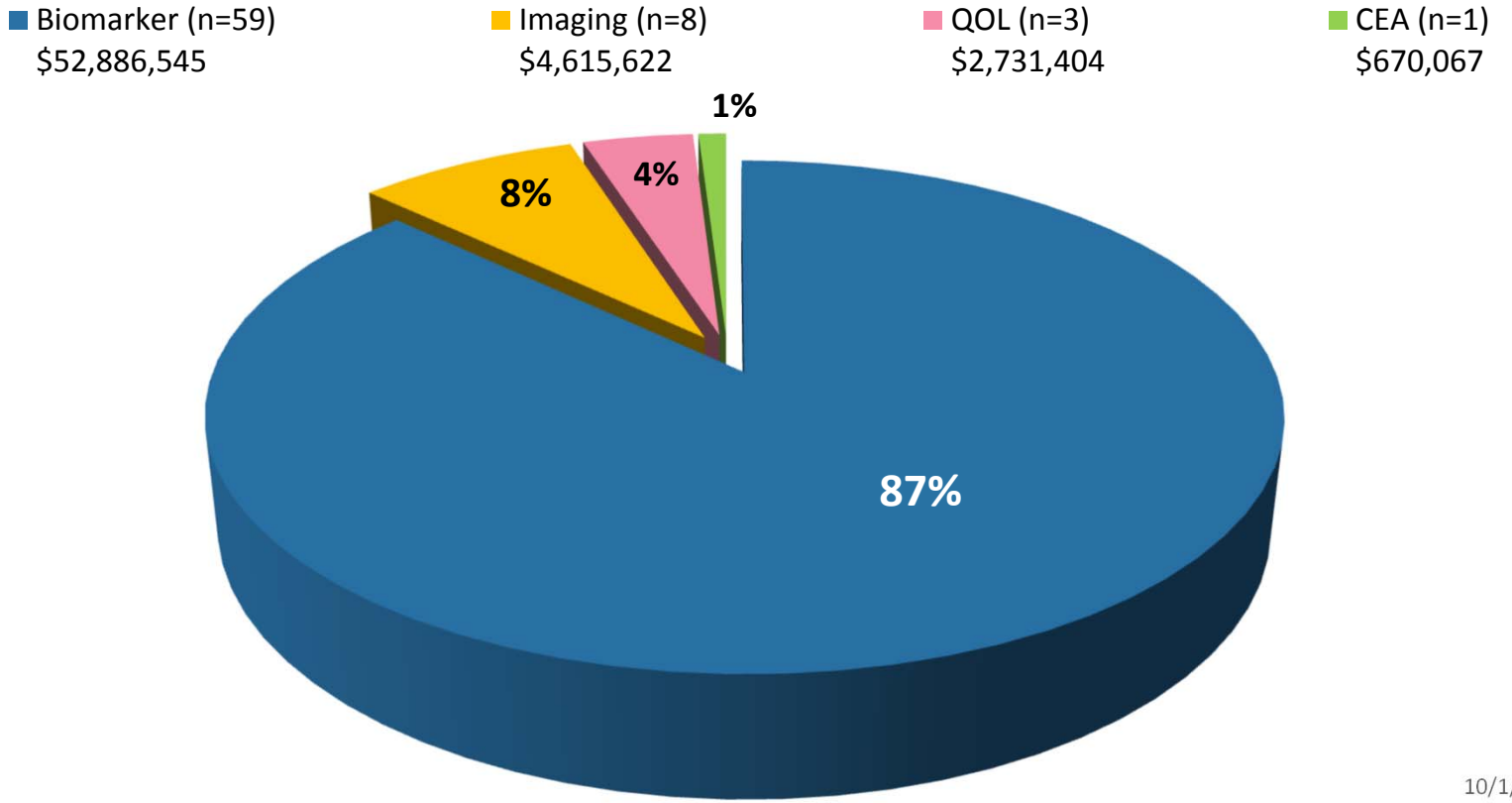
BIQSFP Applications for Studies Embedded in Clinical Trials (FY09 – FY16)



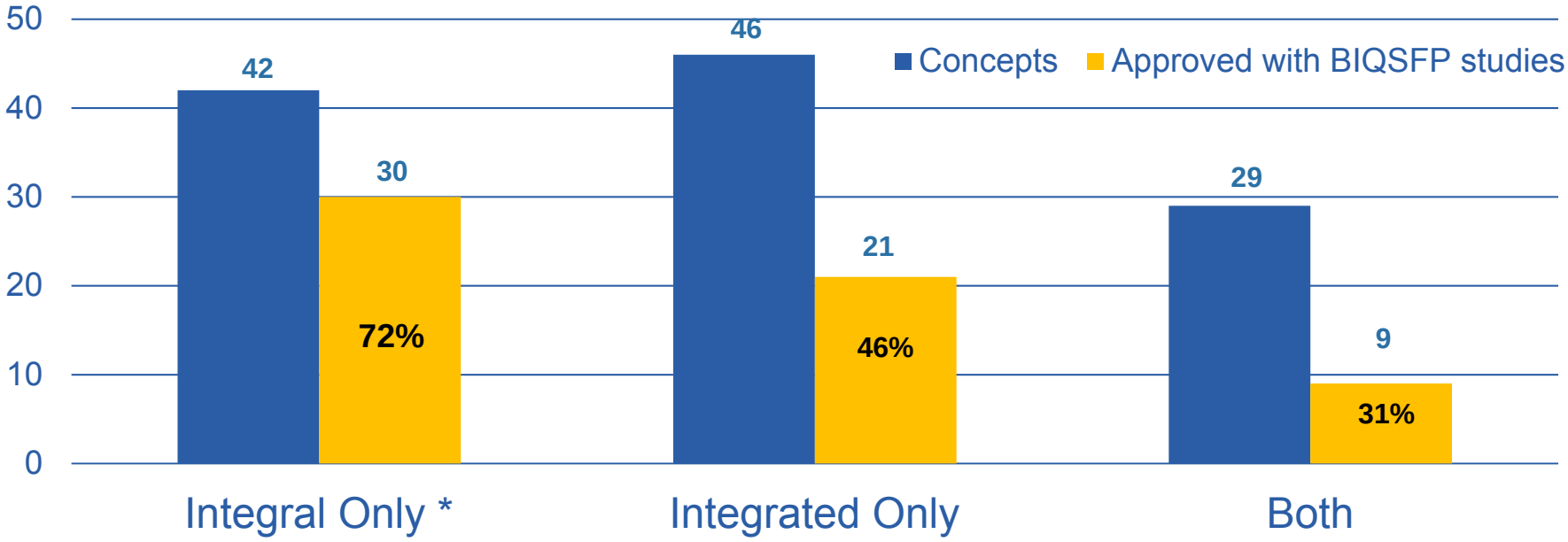
Total of 159 study applications submitted in 117 concepts

BIQSFP Funding by Study Type (FY09 – FY16)

TOTAL BIQSFP FUNDING COMMITTED: $60,903,638



Concepts/Trials with Integral/Integrated Studies



N=117 concepts

* One concept approved with two integral studies.

Biomarker Study Purposes

INTEGRAL BIOMARKER Purpose

Eligibility/Balancing Arms = 35
Treatment Response = 2
Symptom/Toxicity = 0

INTEGRATED BIOMARKER Purpose

Test for Eligibility/Balancing Arms = 0
Test for Treatment Response = 19
Test for Symptom/Toxicity = 3

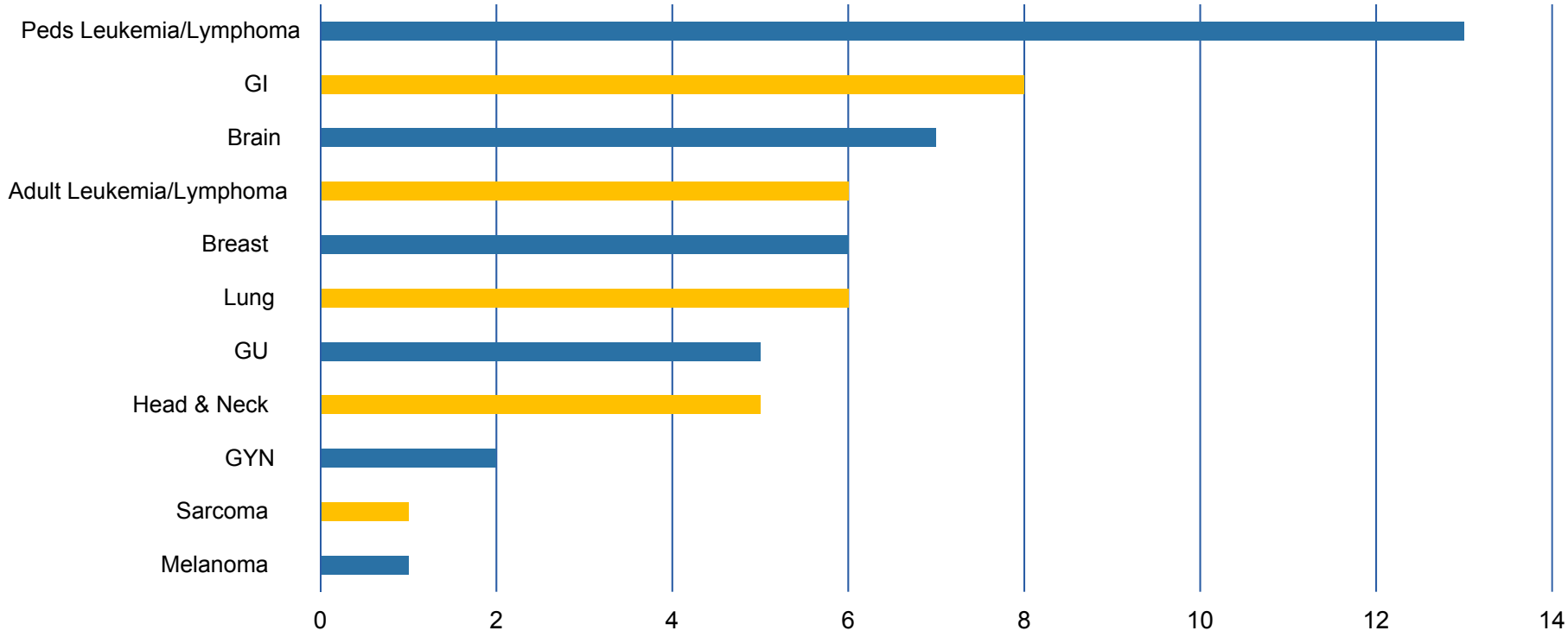
FY'09-FY'16 Approved BIQSFP Study-Type Funding

	TOTAL FUNDING	AVERAGE COST/PROTOCOL
Integral	$39,309,775	$1,965,488
Integrated*	$12,058,341	$575,206
BOTH	$9,535,522	$1,059,502

71 BIQSFP studies funded across 61 NCI protocols = $60,903,638

* Includes CEA

FY'09-FY'16 Approved BIQSFP Studies by Protocol Disease Site



Summary of Approved Protocols w/ BIQSFP Studies

- 71 BIQSFP studies approved across 61 NCI protocols
- 2/61 concepts/protocols withdrawn prior to study activation
- 50/61 protocols with BIQSFP-funded studies activated
  - 14 accrual complete; study outcome pending
  - 33 actively accruing
  - 3 administratively closed (1-toxicity; 1-drug supply; 1-lack of accrual)

FY'08-FY'16 Studies Closed to Accrual (n=14)

Group	Study ID	Closed to Accrual	Estimated Primary Completion
COG	COG AAML0531*	Aug-06	Aug-13
NRG	GOG 0249	Apr-09	Dec-14
NRG	RTOG 0825/ACRIN 6686	Apr-09	Sep-15
SWOG	S0819	Jul-09	Dec-17
Alliance	CALGB 30801	Feb-10	Jan-19
NRG	RTOG 1010	Dec-10	Aug-18
Alliance	CALGB 80803	Apr-11	Jun-17
NRG	RTOG 1016	Jun-11	Jun-20
NRG	NCIC MA.32F	Jul-11	Jun-17
SWOG	S1201	Feb-12	Mar-18
NRG	GOG 0186	Dec-12	Aug-16
ECOG	E1512	Feb-13	Aug-15
Alliance	A031203	Jul-13	Sep-17
Alliance	A091201	Jul-13	Nov-17

* Primary study results reported in Clinicaltrials.gov

Studies with the Potential to Change Standard of Care

- Minimal Residual Disease (MRD) - flow cytometry in pediatric trials (AAML1531, AALL1231, & AALL1131), NGS in adult trials (E1910)
- MGMT promotor methylation - GBM (A071102 & NRG-BN001)
- HPV-p16 stratification - H & N Cancers (RTOG 1016 & 1216)
- FLT3 alterations - Pediatric AAML (1031 & **0531**), Adult Acute Myeloid Leukemia (S1612)
- Ki67 - proliferation marker in breast cancer (A011106)
- ERCC-I - proliferation marker in gastric and gastroesophageal cancers (S1201)
- HER2 - overexpression in esophageal adenocarcinoma (RTOG 1010), amplification in advanced colorectal cancer (S1613)
- Gene Expression Profiling - ABC-subtyping in DLBCL (E1412)

Program Summary

- BIQSFP meets its mission to provide funding for integral and integrated studies in a timely fashion.
- BIQSFP supports ‘precision medicine’ and enhances novel trial design.
- Biomarker studies represent the majority of the BIQSFP applications and funded studies.
- Funded studies have the potential to change the standard of care.
- A limited number of studies have achieved their primary endpoint.
- Assessing the scientific value of the program as studies are maturing is a challenge.

Questions?

Thank you !

https://www.cancer.gov/about-nci/organization/ccct/funding/biqsfp

Raymond Petryshyn, PhD
Lawrence Baizer, PhD
O. Wolf Lindwasser, PhD
Sarah Fabian, MA
Geoffrey Seidel, RN, MS
Sheila Prindiville, MD, MPH

NATIONAL CANCER INSTITUTE

www.cancer.gov

www.cancer.gov/espanol