



POINT-OF-CARE DIAGNOSTICS MARKET DYNAMICS

> Enal Razvi, Ph.D. > Gary Oosta, Ph.D.

Managing Director
Select Biosciences, Inc.
enal@selectbio.us

Biotechnology Analyst,
Select Biosciences, Inc.



Analysis of the Point-of-Care Diagnostics (POCD) Marketplace from the Bottom-Up

Scope of this Report:

- Our previous GEN Report focused on the market dynamics of the lab-on-a-chip (LOAC)/microfluidics space
- One of the key drivers of LOAC are applications in Point-of-care Diagnostics (POCD) and therefore we believe it to be natural for the next GEN Report to focus on a landscape analysis of the POCD space
- This report presents a worldwide quantitative analysis of the trends operative in the POC space and frames it in the context of emerging themes and drivers which are moving this field forward

We Present Here:

- An overall landscape of POCD publications activity
- The “qualitative nature” (“flavor”) of these publications is analyzed and framed in the context of the field
- We analyzed a total of **12,298** publications focusing on POCD – this broad sweep allows us to identify trends in the broader marketplace
- We frame these data in the context of how POCD is a global field and has applications in global health as well as explore some characteristics of this marketplace



POC Publications Database Demographics

Rank	Journals in POC DB	Papers
1	LAB CHIP	194
2	BIOSENS BIOELECTRON	188
3	ANAL. CHEM.	153
4	AM J EMERG MED	146
5	CLIN. CHIM. ACTA	142
6	CLIN. CHEM.	137
7	STUD HEALTH TECHNOL INFORM	134
8	J EMERG MED	134
9	CLIN. CHEM. LAB. MED.	126
10	ACAD EMERG MED	125
11	CRIT. CARE MED.	118
12	PLOS ONE	113
13	AMIA ANNU SYMP PROC	91
14	MLO MED LAB OBS	90
15	ANALYST	79
16	AM. J. CLIN. PATHOL.	73
17	CONF PROC IEEE ENG MED BIOL SOC	73
18	INTENSIVE CARE MED	71
19	RINSHO BYORI	70
20	HEALTH MANAG TECHNOL	69
21	ANN EMERG MED	68
22	NURS MANAGE	67
23	CRIT CARE	67
24	J TRAUMA	65
25	ANESTH. ANALG.	62
26	J DIABETES SCI TECHNOL	60
27	J. CLIN. MICROBIOL.	58
28	AM. J. CARDIOL.	57
29	CHEST	56
30	ARCH. PATHOL. LAB. MED.	56

The database is heavily academic, but still contains 4.7% corporate participants

Type of Group	Percent
ACADEMIC	80.32%
AGENCY	0.08%
AUTHOR	11.59%
COMMERCIAL	4.74%
COUNCIL	0.11%
FOUNDATION/TRUST/NON-PROFIT	0.80%
GOVT_AU	0.02%
GOVT_CA	0.03%
GOVT_FR	0.23%
GOVT_KR	0.01%
GOVT_US	1.94%
ORGANIZATION	0.13%

The database contains the journals one might expect for a POC DB, validating its utility for our study



Interest in POC is worldwide

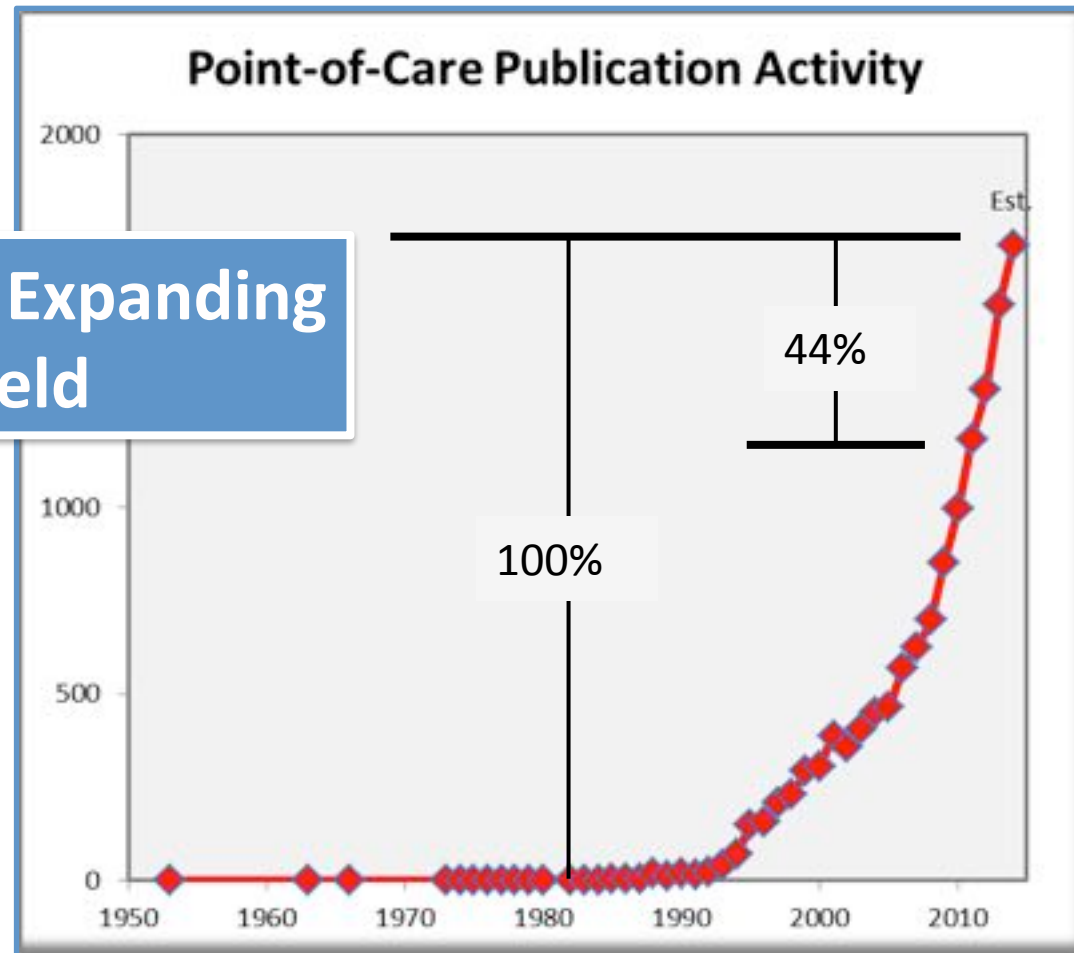
Rank	Country	Papers
1	UNITED STATES	4789
2	UNITED KINGDOM	721
3	GERMANY	589
4	CANADA	514
5	AUSTRALIA	344
6	FRANCE	292
7	CHINA	245
8	ITALY	233
9	NETHERLANDS	222
10	JAPAN	185
11	SWITZERLAND	161
12	INDIA	147
13	SWEDEN	135
14	KOREA	124
15	BELGIUM	119
16	ISRAEL	107
17	SPAIN	98
18	AUSTRIA	89
19	GEORGIA	83
20	TAIWAN	80
21	DENMARK	78
22	SINGAPORE	68
23	SOUTH AFRICA	65
24	FINLAND	62
25	IRELAND	60

Region	Papers
AFRICA	1.92%
ASIA	11.45%
AUSTRALIA	3.84%
CARIBBEAN	0.09%
CENTRAL, SOUTH AMERICA	0.59%
EUROPE	30.06%
MELANESIA, MICRONESIA	0.01%
MIDDLE EAST	0.25%
NORTH AMERICA	5.21%
POLYNESIA, OCEANIA	0.01%
USA-COUNTRY	46.57%

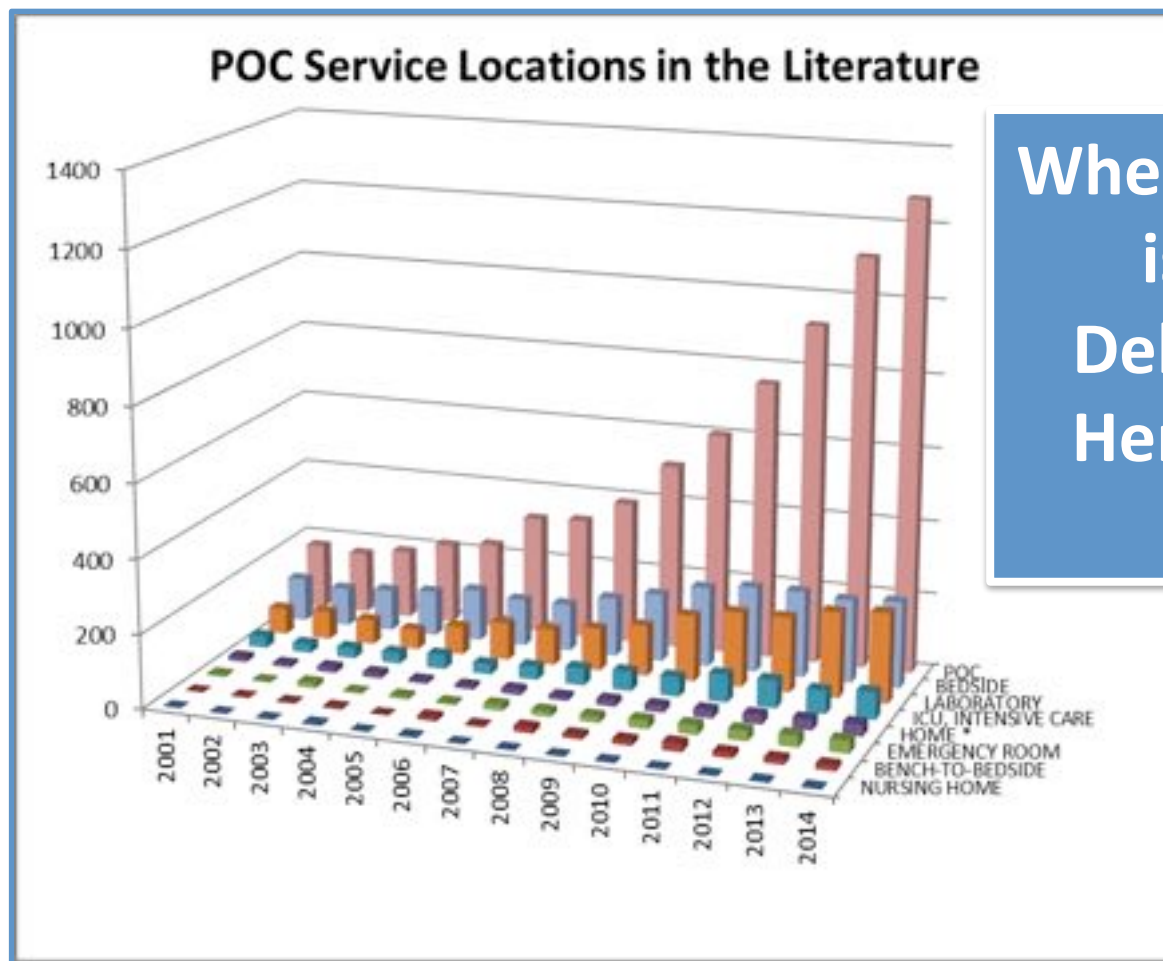
**There were 110 countries
in the POC Database we
Built**

Publication Activity in POC/Bedside Testing

This is an Expanding Field



POC Service/Delivery Locations

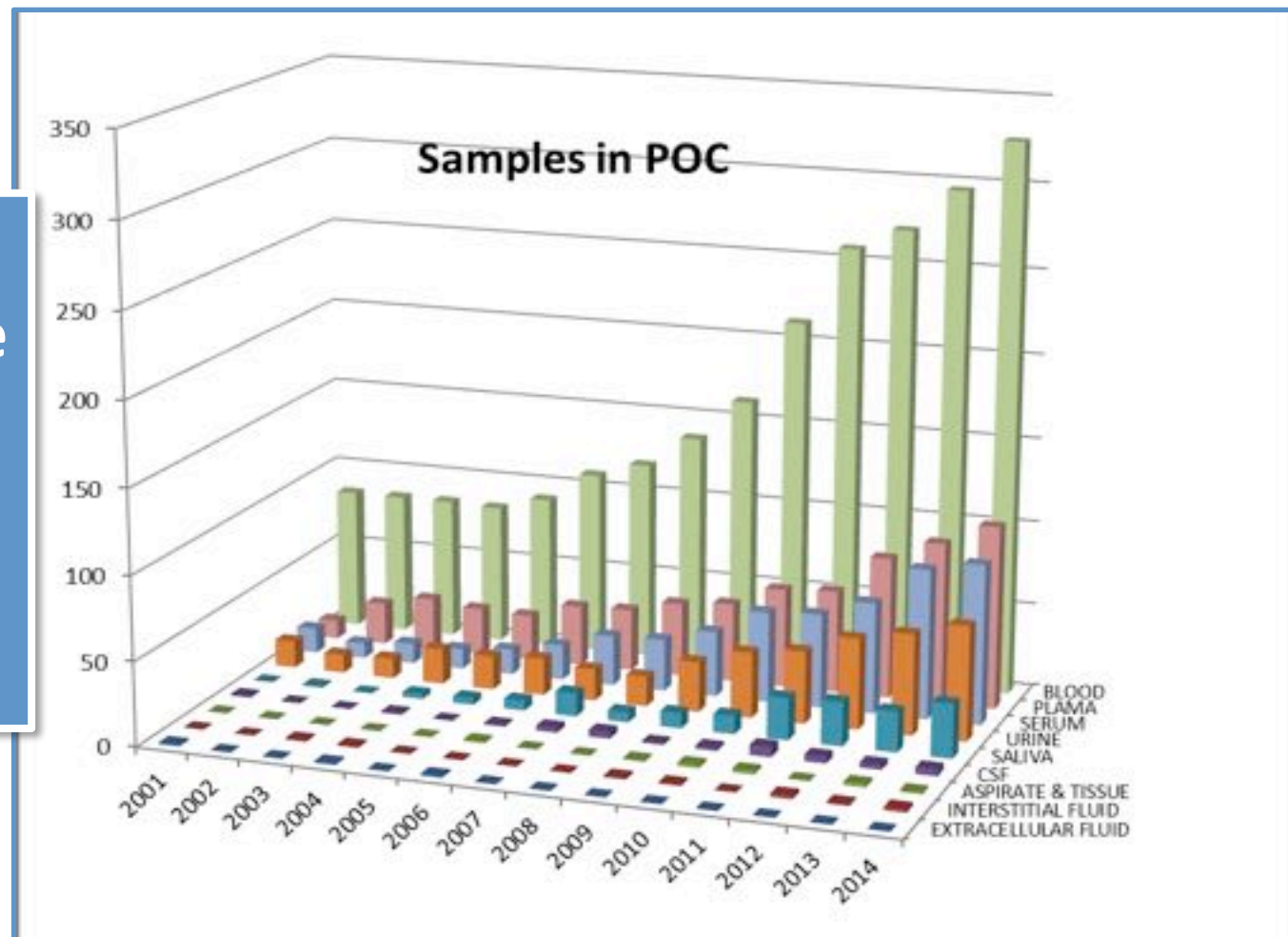


**Where Exactly
is POC
Delivered?
Here is the
Data**



Samples in POC: The Most Common is Blood

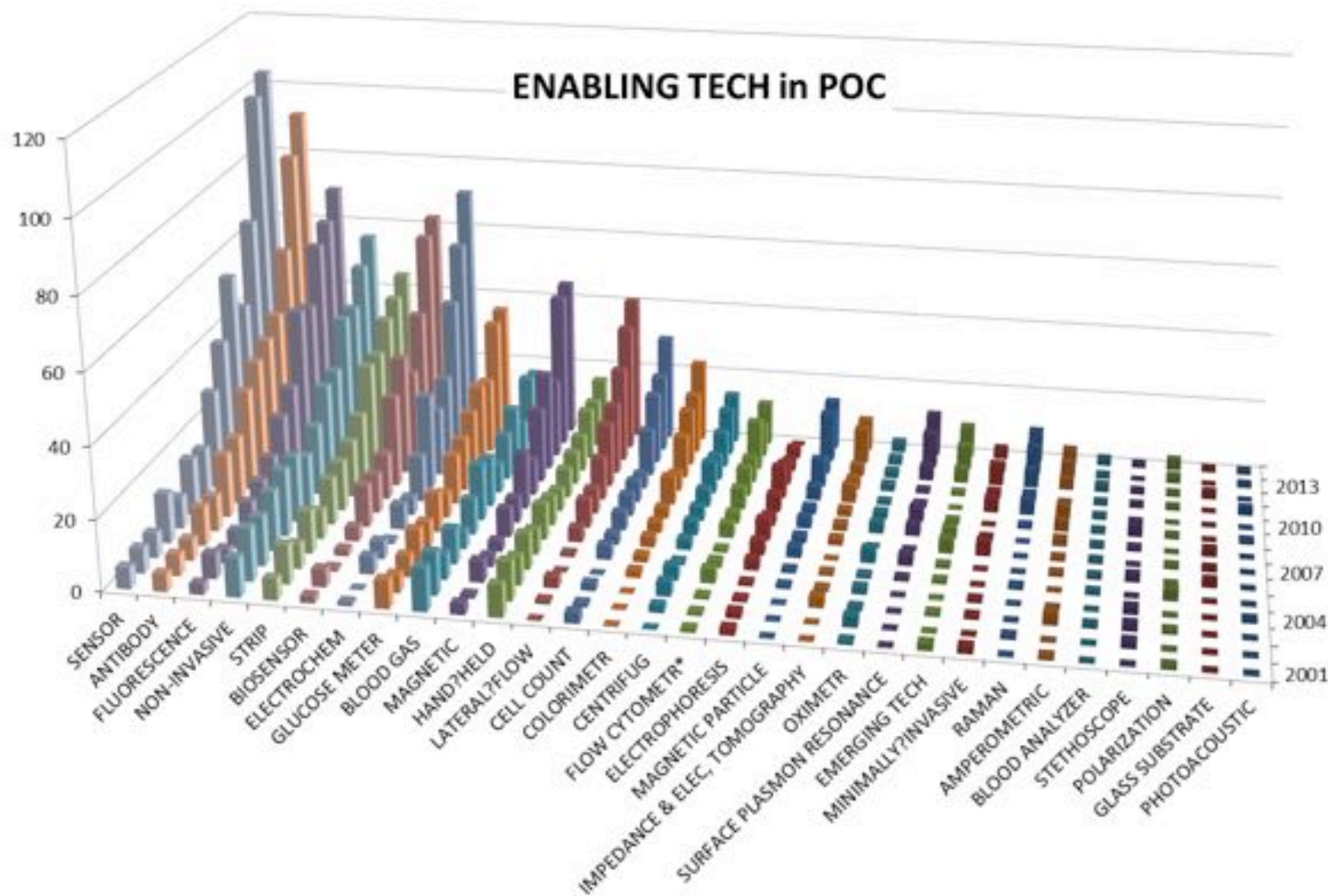
What are
the Sample
Classes
that are
Tested in
POCD?





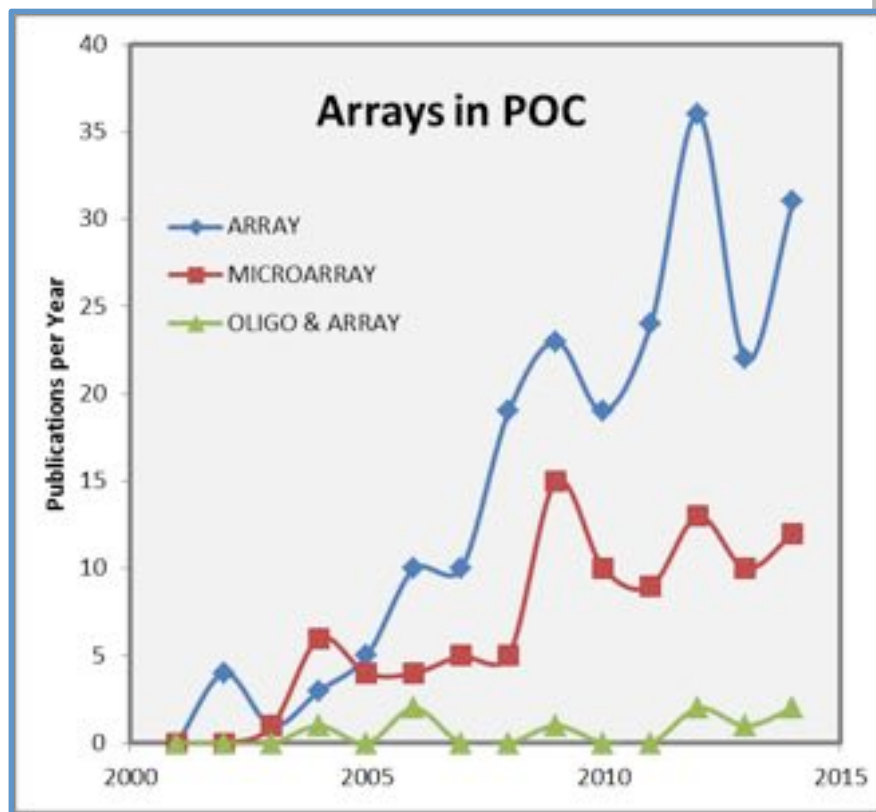
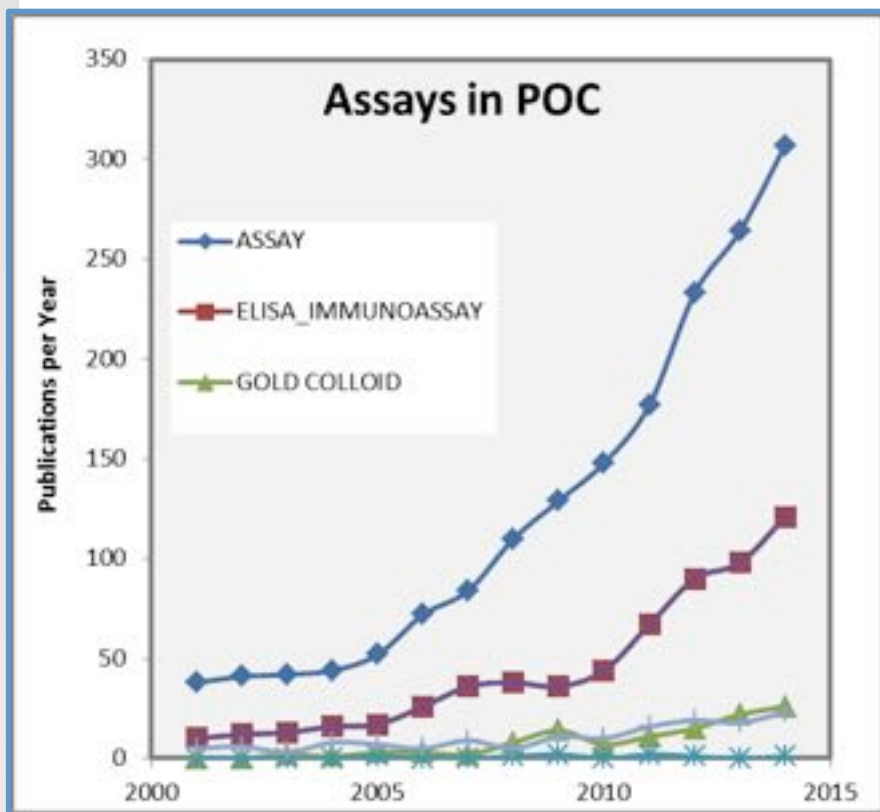
Enabling Technologies in POC

These are some of the tools necessary to make POC assays

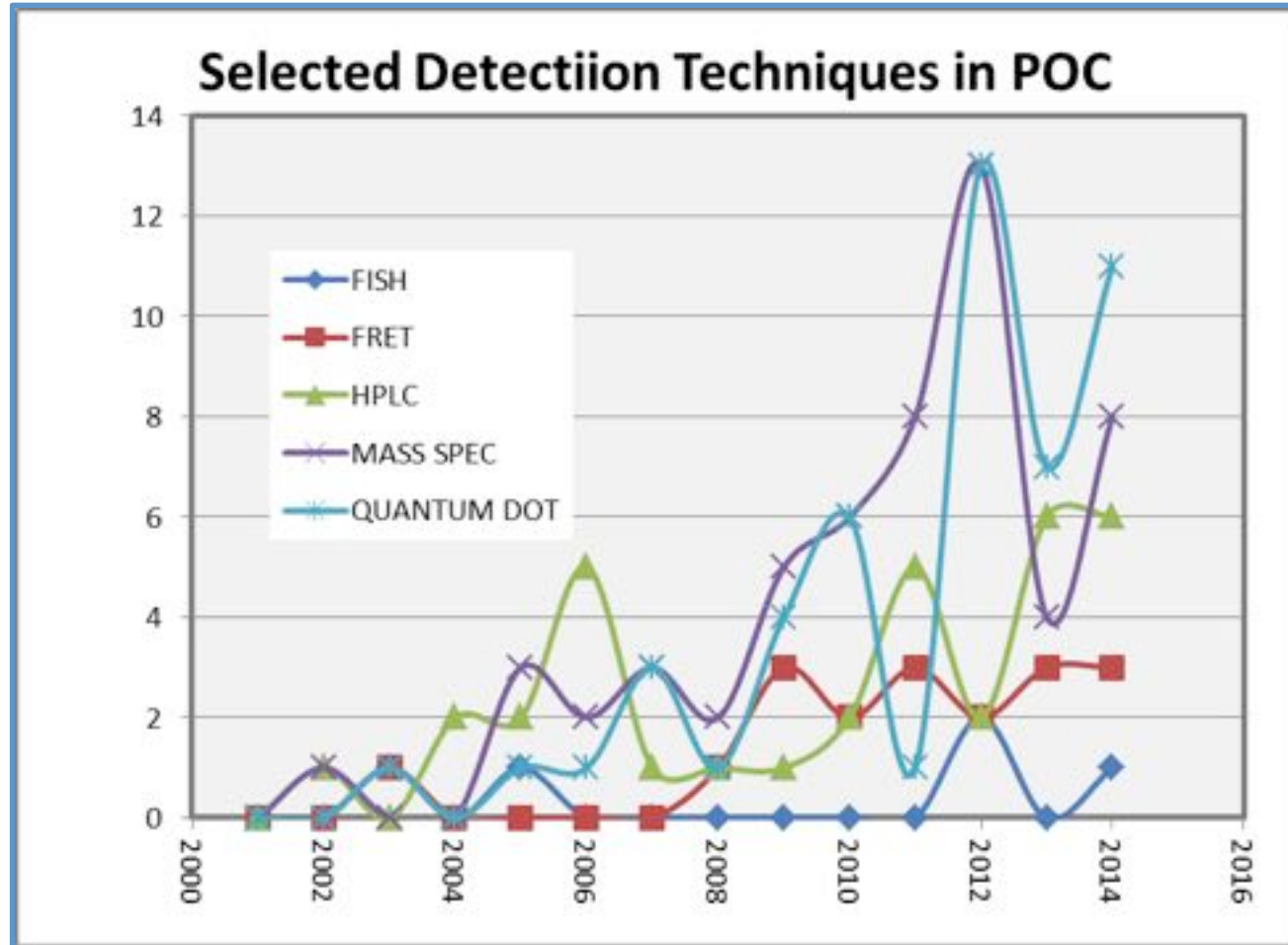




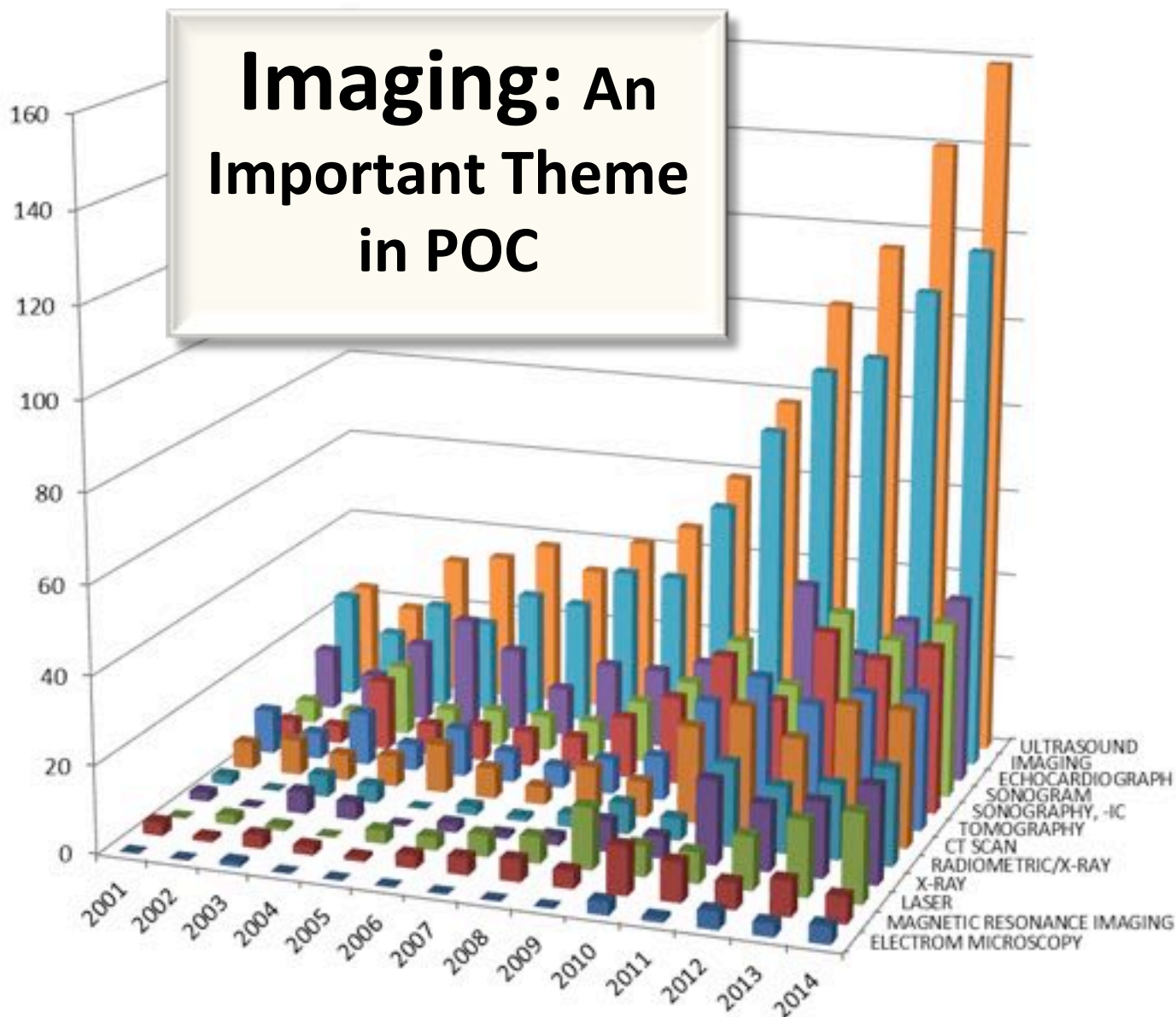
Immunoassays: Growing Theme in POC Arrays: Smaller but growing



In POC, Advanced Detection Methods: Small Contribution Currently

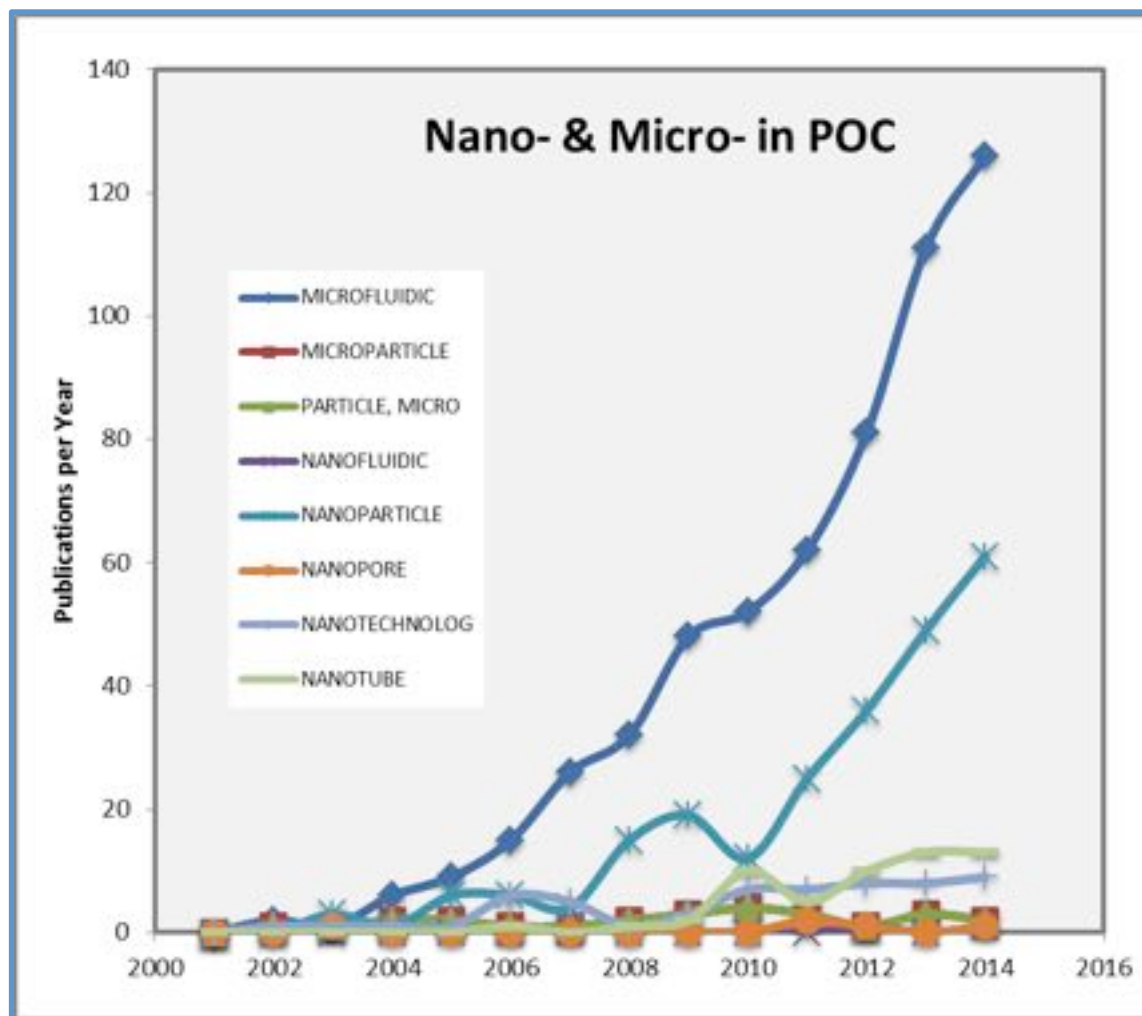


Imaging: An Important Theme in POC

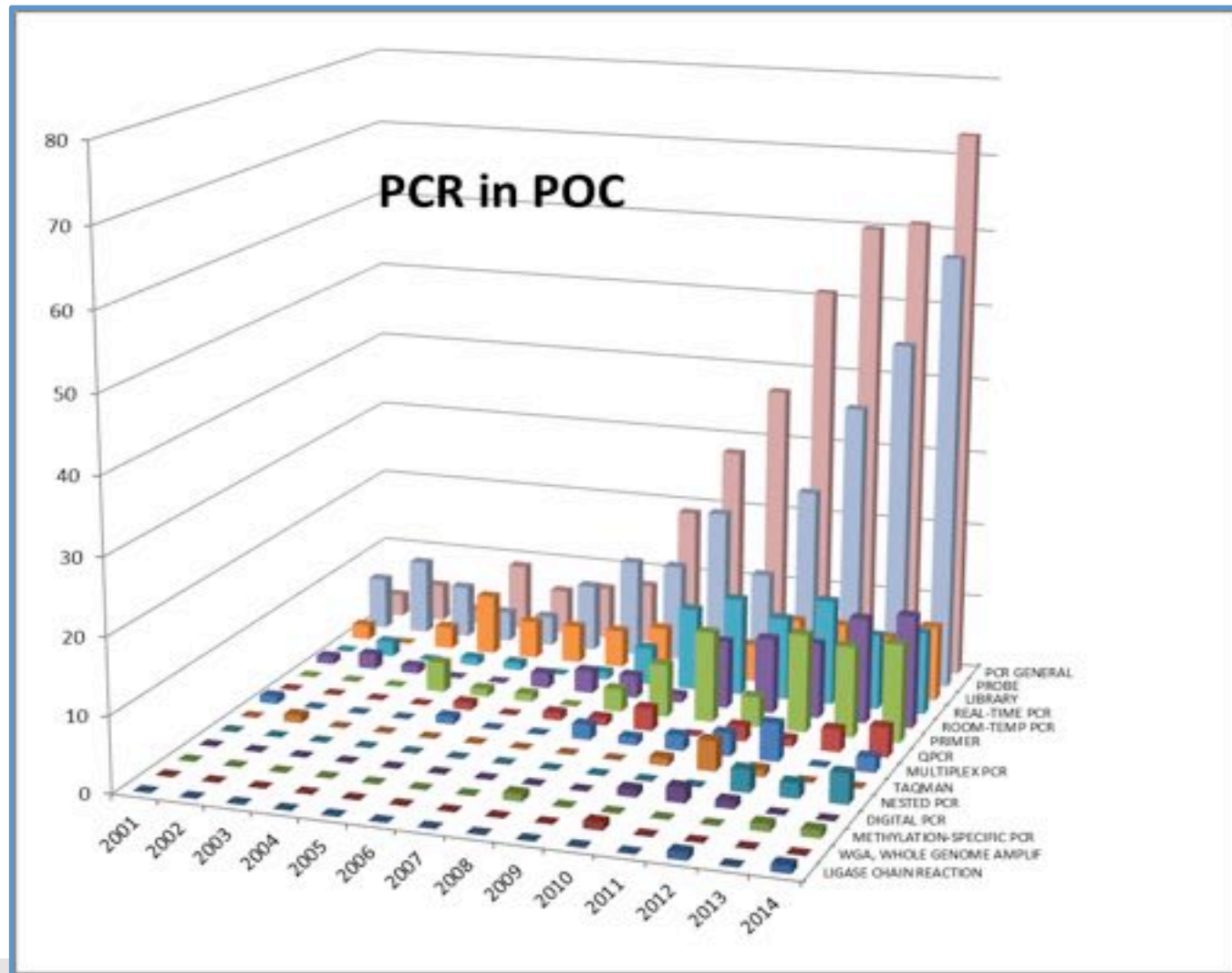


Micro-, Nano- Themes in POC

Microfluidics is an established and growing theme in POCD
Nanoparticles are of increasing importance.



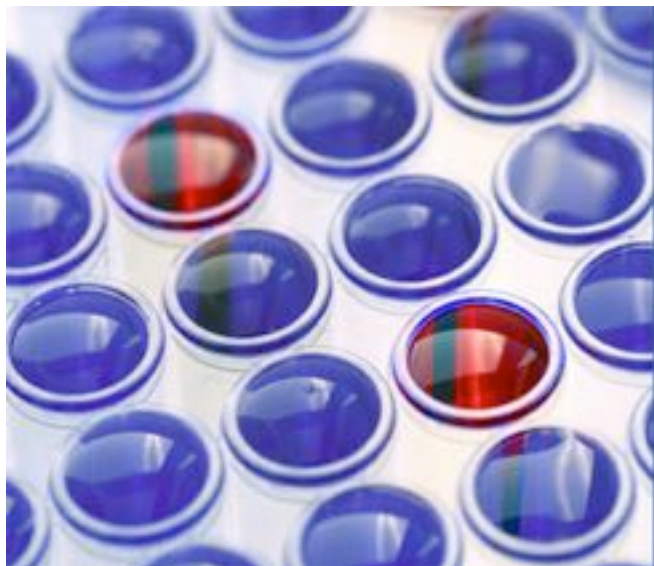
PCR Amplification in POC is Growing





Conclusions on the Point-of-Care Diagnostics (POCD) Marketplace

- In this report we've provided a data-based quantitative approach to providing characteristics of the POCD marketplace
- We've sought to understand the character of this field which is global in nature and the impact of technology platforms such as PCR on the POCD field
- We believe that our approach to understanding the POCD field allows us to identify trends – such as sample classes most-commonly utilized for POC testing as well as the impact of technologies – microfluidic or imaging approaches, for instance – which *a priori* we may not have anticipated
- Taken together, our continuing coverage of the POCD marketplace is presented and our goal is to continue to provide industry data on expanding and changing markets such as POC diagnostics



Point-of-Care Diagnostics & Global Health World Congress

28 - 30 September 2015 • San Diego, California

Select Biosciences is bringing together the academic and industrial community focusing on Point-of-Care Diagnostics at this annual congress in San Diego, California, USA from September 28-30, 2015.

All the Key Opinion Leaders (KOLs) in this Field are Present.

For More Details, Please Visit the Website Listed to the Right or Scan the QR Code using your Mobile Device

<http://bit.ly/1HiS8js>

