



The Johns Hopkins University's

 **2010 ACG International  
Risk Adjustment Conference**



**MAY 10-12**   
**Tucson, Arizona**  
Loews Ventana Canyon

# **Plenary Session 1: Welcome & Conference Opening**

**Jonathan Weiner**

**Professor, The Johns Hopkins University**

**Executive Director of the ACG Team**

**May 10, 2010**

# **This Year's Theme:**

## **From Measurement to Management**

- The Johns Hopkins University's ACG Team has 30+ years experience measuring case-mix / risk and assessing the need for health services.
- As our tools are increasingly used for predictive modeling / high risk case-identification, ACGs have also evolved into a state-of-the-art method for identifying “at-risk” individuals.
- In collaboration with our user base (and our colleagues at Johns Hopkins HealthCare) we have become more involved in care management issues.
- Our latest release (9.0) offers a series of new measurement tools that will directly support care management actions.



# Goals of the Conference

- **To help advance the technical state-of-the-art of risk adjustment and predictive modeling-in general, and ACG applications in specific.**
- **To share Johns Hopkins ACG advances & developments with current users.**
- **To introduce new users to the ACG system.**
- **To provide a forum for communication.**
- **To have fun!**

# Conference Participants

- 35+ organizations
- 5 continents and about a dozen nations
- Health plans/provider organizations
- Support service companies (e.g., IT care management)
- Consulting/actuarial firms
- State/province/government agencies
- Universities/Institutes

# **Conference co-located with DST's HUG (Healthcare User Group)**

- Shared social events, food, exhibit hall
- A shared plenary (Wed. morning on Health Reform)
- We will welcome HUG users to our sessions
- You are welcome to attend HUG general sessions. See the registration desk for a HUG session agenda.
- Please share your ACG success stories with HUG attendees

# Sponsorship:

- We gratefully acknowledge support from:
  - ❖ The Johns Hopkins University ACG Royalty Fund
  - ❖ DST Healthcare Solutions Inc.

## Additional Sponsors:

- ❖ Johns Hopkins Healthcare
- ❖ Health Data Essentials

# About Presentation Slides

- We are going green this year
- All sessions will be shared via web page ([www.jhsph.edu](http://www.jhsph.edu))
- There will be on site print station to print out before or after session
  - ❖ Location – Sonora Room

# Having Fun!

- **Welcome Dinner Reception – Tonight – in the Resort’s Coyote Corral 6-8PM**

**And for those who want more..**

- **Night out in Tucson (Tonight)**
  - ❖ **Bus leaves Resort at 9:00PM will drop you off in downtown Tucson.**
    - **Meet in the Resort Lobby. There will be signage to guide you.**
  - ❖ **Bus will have (2) scheduled pick-up times from downtown to bring you back to the resort. The first round is at 11:00 and the second is at 1:00am.**
- **Tomorrow – Reception and Prize Drawing 5-7PM**

# The State of Johns Hopkins ACGs in 2010



# **Innovative uses of ACGs among the 300+ organizations worldwide that apply them**

- **Predictive case identification.**
- **State, provincial and private health plan payment and financial incentives to providers.**
- **Provider performance efficiency assessments.**
- **Financial management, planning and actuarial assessment.**
- **Hands-on care management / quality improvement.**
- **Tool integrated into EHR-based data management.**
- **Cutting edge health care research, analysis and planning.**

# **No system more fully tested by “real world” applications**

- **Billions of dollars per year are now routinely exchanged using ACGs.**
- **Healthcare of 75+ million patients is actively managed and monitored using ACGs on several continents.**
- **The practices of hundreds of thousands of physicians are now more equitably assessed on an ACG case-mix adjusted basis.**

# The Johns Hopkins University ACG Team

## ▪ Faculty

- Jonathan Weiner, DrPH (“CEO”)
- David Bodycombe, ScD (“COO”)
- Barbara Starfield, MD
- Bruce Leff MD
- Cynthia Boyd, MD
- Jeanne Clark, MD
- Susan dos Reis RPh, PhD

## ▪ Staff

- Chad Abrams
- Klaus Lemke, PhD
- Huiyuan Zhang , MD
- Erica Wernery
- Tom Richards

## Our International Team

- Karen Siemens, PhD (Germany) (Int. Director)
- Stephen Sutch (UK)
- Patricio Muñoz, MD (Chile)
- Peter Lee, MD (Malaysia)
- Khesh Sidhu, MD (UK)
- James Barrett, MD (UK)
- Mame Nang, MD (Baltimore)

## Consultants / PT Staff

- Christopher B. Forrest, MD, PhD
- Ken Shermock, PharmD, PhD
- Clinical pharmacists
- Specialty clinicians
- Graduate assistants

# Some 2010 ACG Milestones

## ■ New Major Release (9.0)

- ❖ Coordination markers
- ❖ Pharmacy adherence metrics
- ❖ Hospitalization prediction model
- ❖ High-use pharmacy outlier model
- ❖ Many advances to software (including enhanced capacity for local calibration and customization)

## ■ Some other highlights

- ❖ Many new clients and applications actively using pharmacy based version (both US ATC and international ATC)
- ❖ Huge growth in the ACG international use
- ❖ Dozens of new ACG peer reviewed publications
- ❖ Over 20 Medicaid programs using ACGs
- ❖ About to release completely revamped web page

# **Our revamped web page coming soon:**

**[www.acg.jhsph.edu](http://www.acg.jhsph.edu)**

- **New Features (beyond updated look and feel):**
  - ❖ Streaming media
  - ❖ Searchable: All of our material is indexed so that you can find it.
  - ❖ Bibliography: linked to pub med
  
- **In the future**
  - ❖ User Forum
  - ❖ Calendar - ACG activities by region or even country.
  
- **We will send you announcement in a few weeks, please check out and provide feedback.**

**Sneak preview of V-9.0 measures that  
will be the focus of presentations at  
this conference**



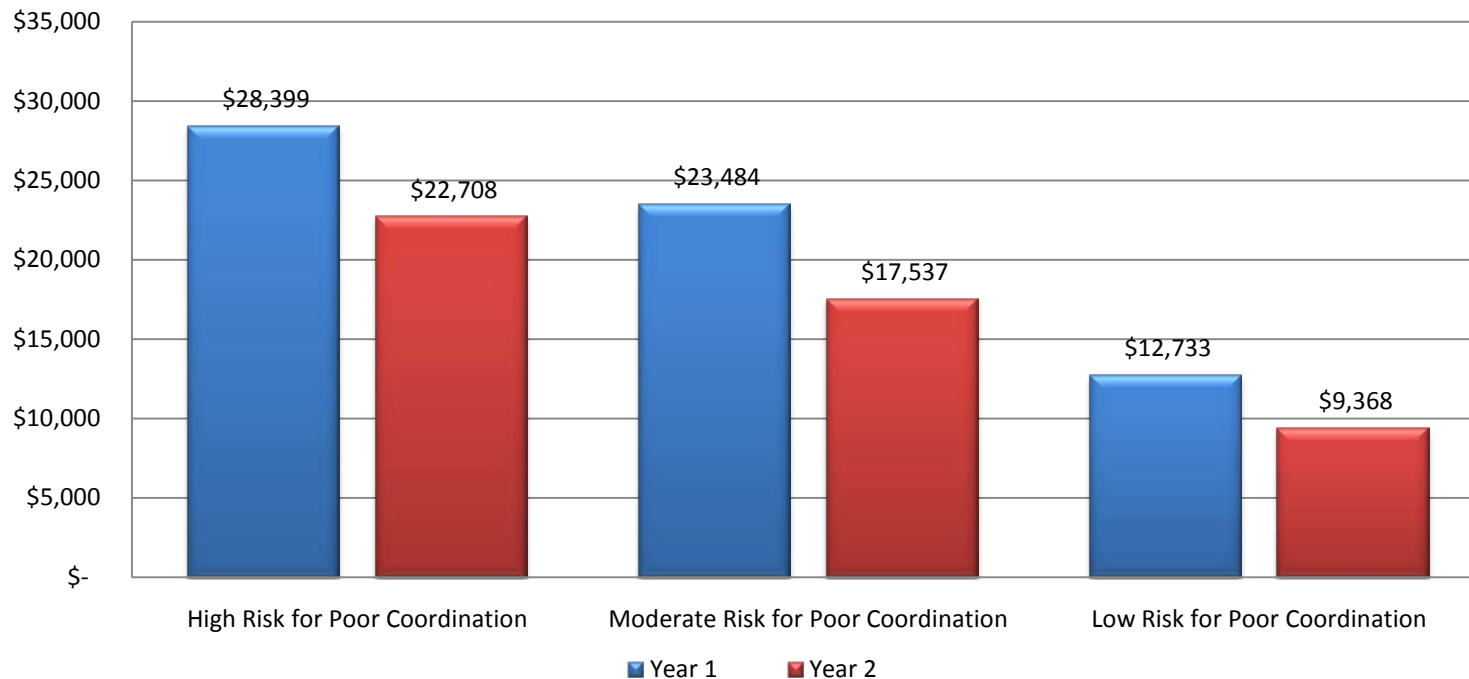
## **ACG's new Markers of Coordination**

- **A majority source of care (and percent of outpatient visits provided)**
- **A count of the number of unique providers**
- **A count of the number of specialty types (not the same as number of specialists seen)**
- **A marker for the ABSENCE of a generalist**

# Mean Year 1 & Year 2 Expenditure by Level of Coordination

(Based on Yr-1 patterns of care for persons in high RUB)

Mean Expenditure in the High Resource Group



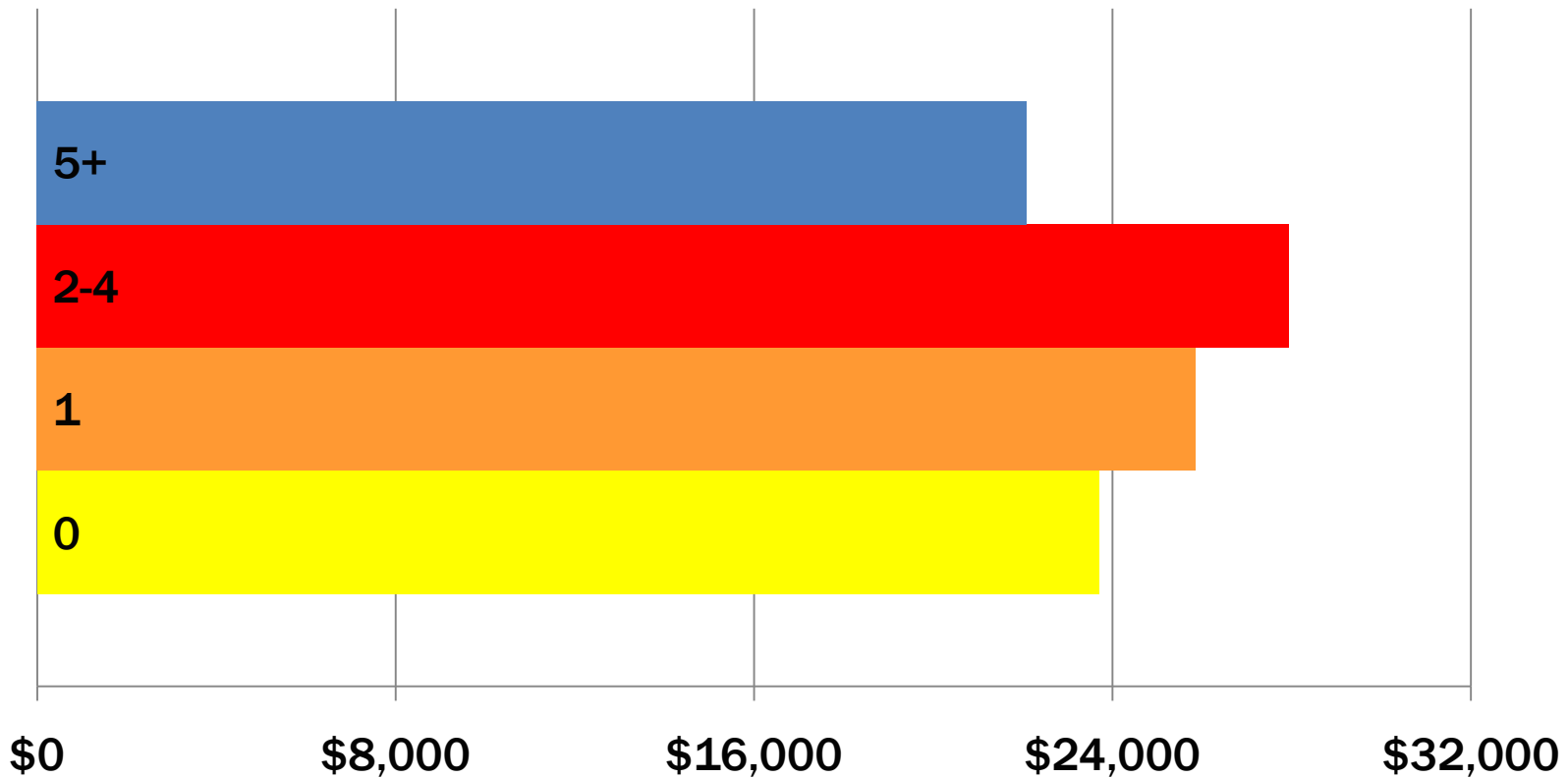
## Medication Adherence

***“Of all medication-related hospital admissions in the United States, 33 to 69 percent are due to poor medication adherence, with a resultant cost of approximately \$100 billion a year.”***

Osterberg, L. and Blaschke, T. Adherence to Medication. NEJM. 2005;353:487-97.

# Today's Gaps in Rx Adherence Can Have Implications for Future Costs

**Year-2 total costs for persons with Ischemic Heart Disease (and RUB 4/5 co-morbidity level) by # of Rx Adherence Gaps in Year 1**



*Based on 11,857 persons with IHD from a large national commercially insured population for 2005*

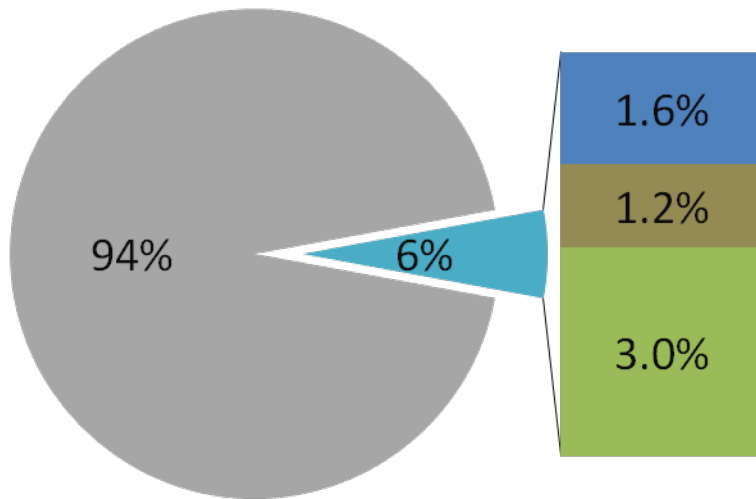
# New Predictive Models for Hospitalization

- Acute care hospitalization
  - Excluding childbirth and injury
  - 2 prediction periods: 6 and 12 months
- Intensive care hospitalization (ICU/CCU)
- Extensive length of stay (12+ days cumulative)
- Injury-related acute care hospitalization

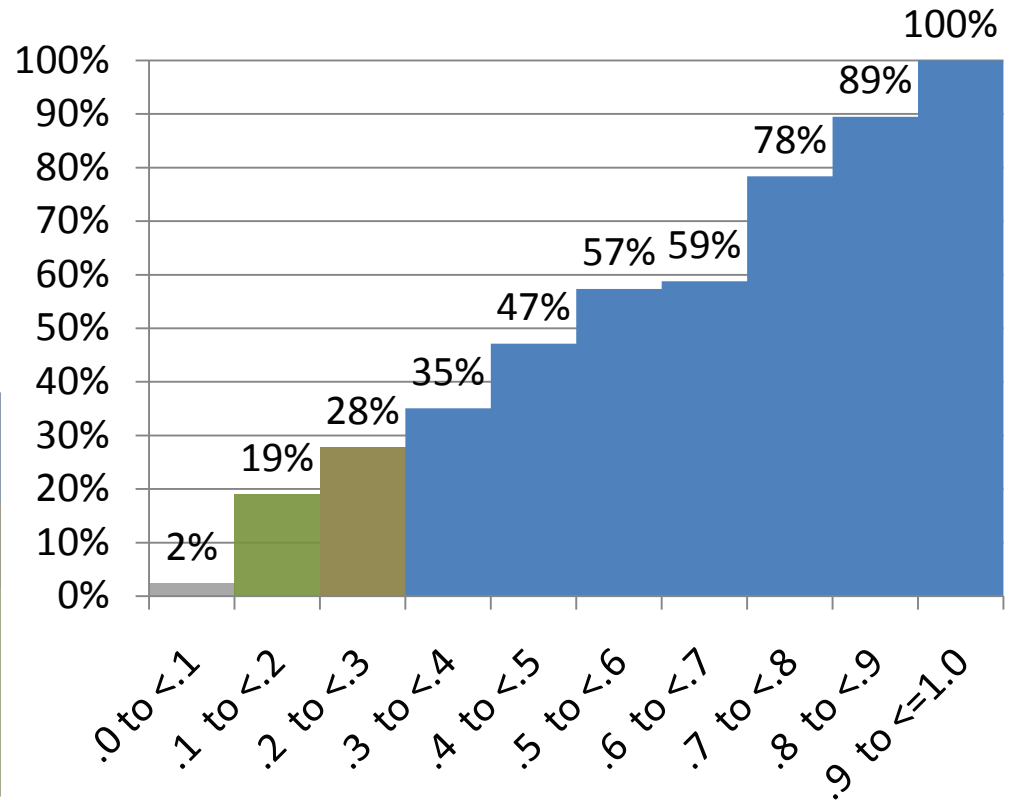
# Hospitalization Risk in a Medicaid Population

## Probability of Hospitalization Distribution

- .3 to <= 1.0
- .2 to < .3
- .1 to < .2
- .0 to < .1



## Percent Hospitalized by Probability of Hospitalization

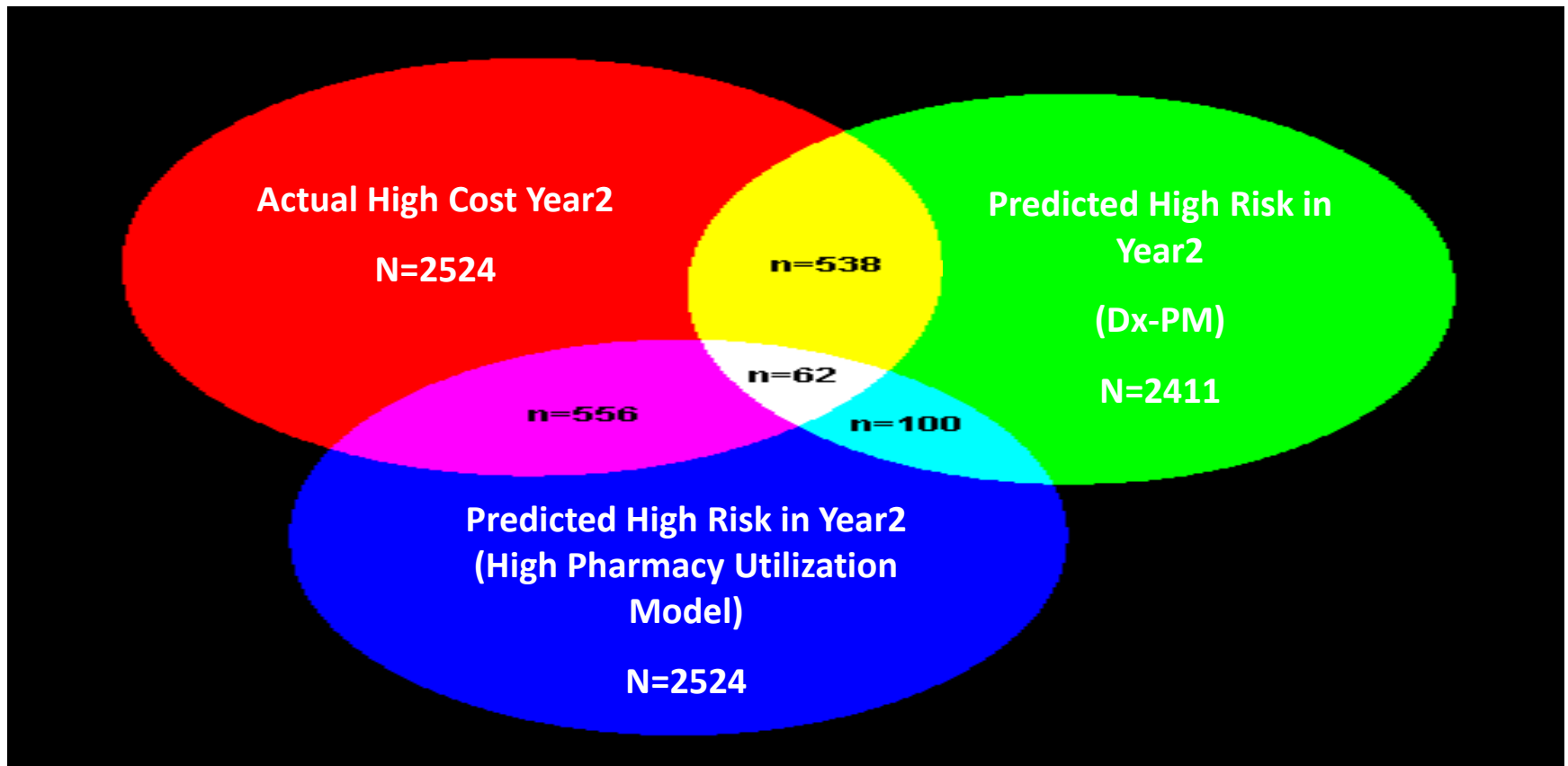


# High Pharmacy Utilization Model

**High Pharmacy Utilization Focuses on the Discontinuity Between Morbidity and Pharmacy Use:**

*We identify individuals likely to use more drugs than anticipated based just on their morbidity profile.*

# High Pharmacy Utilization Model compared to traditional ACG Dx-PM



Data from Aragon's Public Health Care System, 2006-2007.  
n=84,512

# TO LEARN MORE ABOUT VERSION 9.0 -

- Entire system will be featured as part of “management to measurement plenary tomorrow at 8:30AM.
  - **Pharmacy Adherence:** Concurrent Session IIIA: Leveraging the Power of Pharmacy Data for Risk Prediction and Care Management Delivery 3:00 PM-4:30 PM Salon D/E
  - **Unexpected High Pharmacy:** Concurrent Session IIIA: Leveraging the Power of Pharmacy Data for Risk Prediction and Care Management Delivery 3:00 PM-4:30 PM Salon D/E
  - **Hospitalization Models:** Concurrent Session IVA: Advanced Analytic Techniques: Making the Most of ACG Predictive Modeling Wednesday 9:45 AM-11:00 AM Salon D/E
  - **Coordination:** Concurrent Session IVB: Improving Equity and Efficiency in Health Care Delivery 9:45 AM-11:00 AM Executive Board Room
- ★ V.9.0 – Sessions are indicated on the agenda

# Please be sure to share your feedback

- **Interactive closing plenary seeking users' experience**
  - ❖ There will be Amazon gift card raffle.
- **Tell us what you think!**
- **DURING the Conference– Participate in user survey being conducted by Gary Nissen, of Health Plus Technologies**
  - ❖ Amazon Gift Card Raffle
- **Please share your comments / feedback with Johns Hopkins ACG team members or DST support team (lead by Amy Salls).**

# ACG International – Raising the Bar

- **This year:**
  - ❖ Record number of countries using ACGs.
  - ❖ New team members added in Asia & Europe.
  - ❖ New special international software release in coming months.
  - ❖ Record number of international attendees and abstract submissions.
  - ❖ Development of academic research network.

