

The Future of Audiology: A View from “Up Over” (United States of America)

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The Future of Audiology: A View from “Up Over” (United States of America)



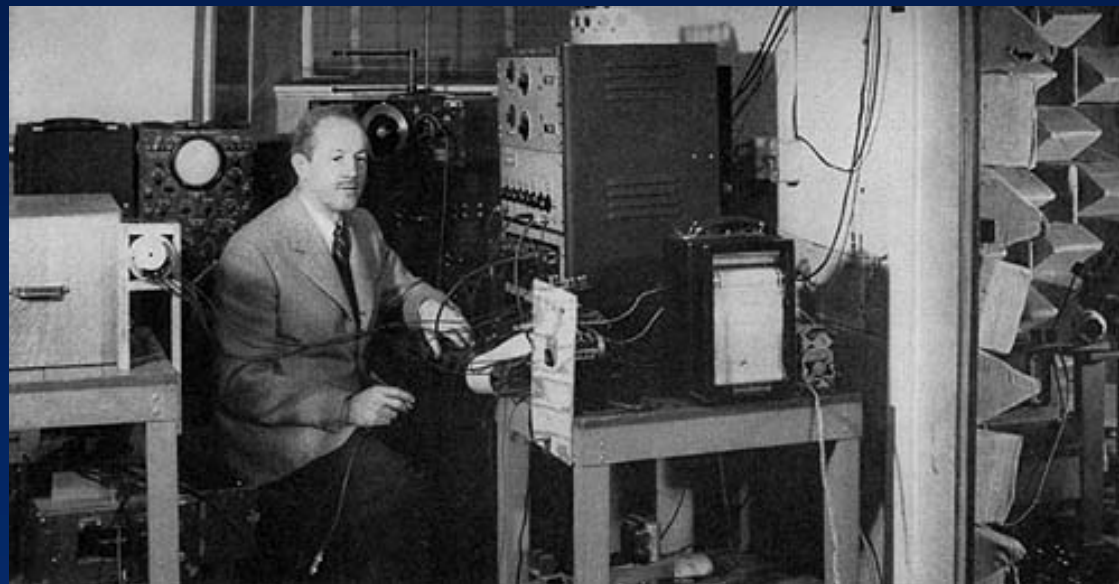
Audiology Grandfathers: Clinical Scholars Who Built the Foundation of Audiology



Scene from Early 1950s

**James W. Hall III
performs an eye and ear
examination on
James W. Hall, Sr., OD
(1895-1966)**

**Psychoacoustics Laboratory (PAL)
Harvard University (1940s and 1950s)**



**SS Stevens
(1906-1973)**

Audiology Grandfathers: Clinical Scholars Who Built the Foundation of Audiology



Georg von Békésy
(1899 - 1972)



Nobel Prize for
Physiology or Medicine
1961



GSI E800
Békésy Audiometer

Audiology Grandfathers: Clinical Scholars Who Built the Foundation of Audiology



**Harvey Fletcher
(1884-1981)**

**PhD from University of Chicago under
Nobel Prize Winner Robert Miliken**

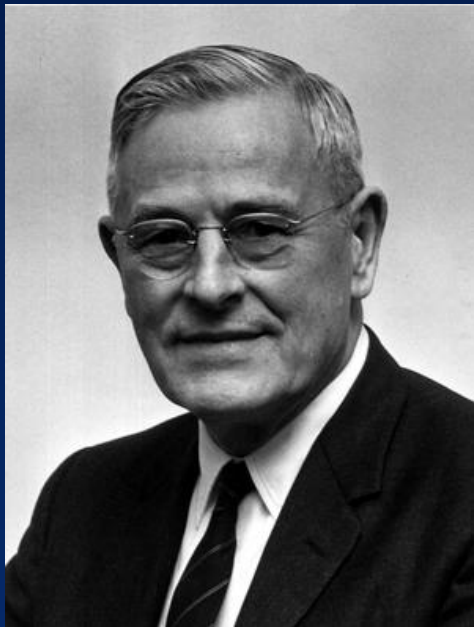
**Illustrious Career at Bell Telephone
Laboratories**

Seminal Publications, e.g.

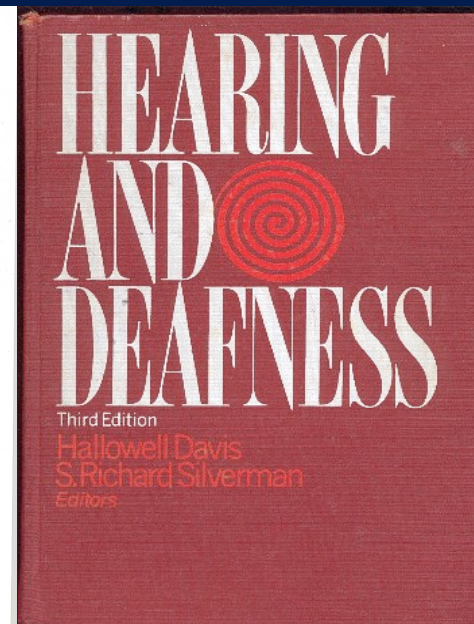
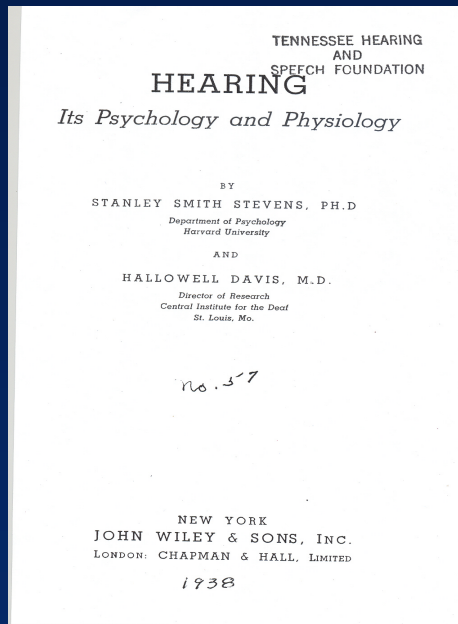
**Fletcher H (1929). Speech and Hearing.
New York: D Van Nostrand**

**Fletcher H & Steinberg JC (1929).
Articulation testing methods. Bell
System Technical Journal, 8, 806-854**

Audiology Grandfathers: Clinical Scholars Who Built the Foundation of Audiology



Hallowell Davis
(1896 - 1992)

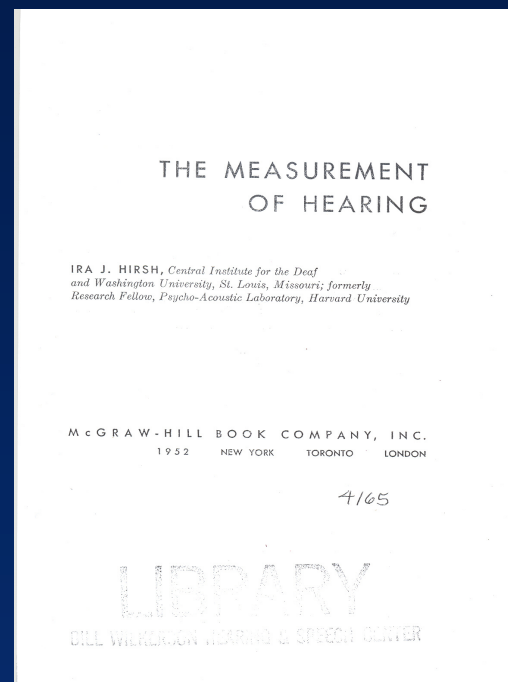


Audiology Fathers: Clinical Scholars Who Built the Foundation of Audiology

The Hearing Journal, 64 (7), 2011



**Ira Hirsh
(1922 - 2010)**



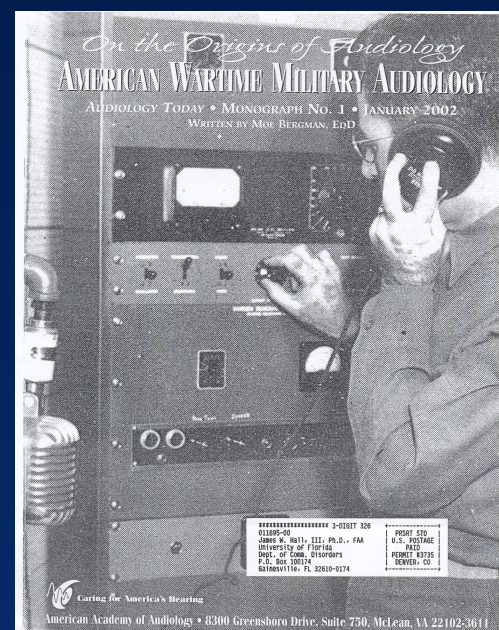
Audiology Fathers: Clinical Scholars Who Built the Foundation of Audiology

The Hearing Journal, 64 (8), 2011



**Robert Galambos, PhD, MD
(1914 - 2010)**

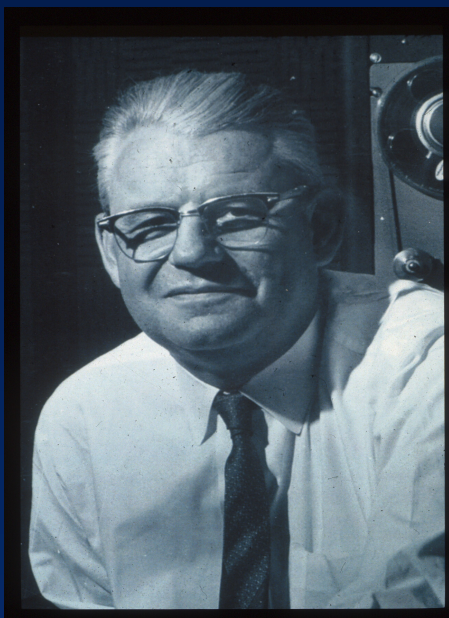
Audiology Fathers: Clinical Scholars Who Built the Foundation of Audiology *Demand for Hearing Services During and After WW II*



Clinical Scholars Who Built the Foundation of Audiology

Raymond Carhart, PhD

"Father of Audiology"



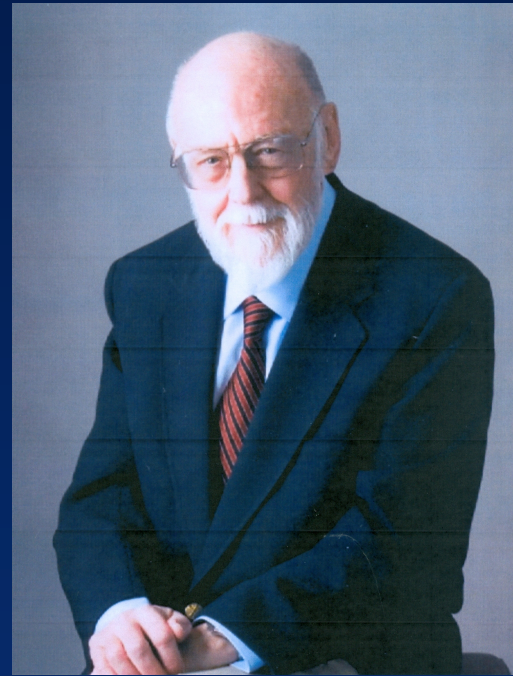
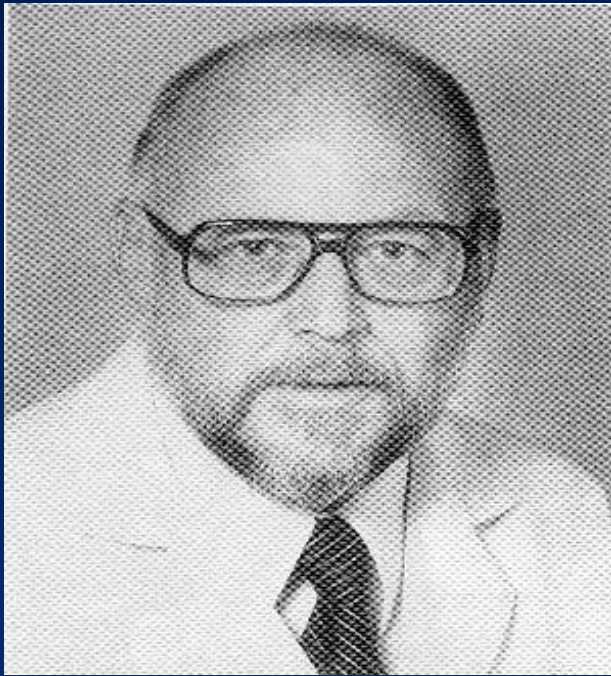
Raymond Carhart
(1912 - 1975)

- ❑ Developed clinical protocols while Captain in US Army
 - Diagnostic hearing assessment
 - Aural rehabilitation
- ❑ Established one of the first formal educational programs for audiology at Northwestern University
- ❑ Research funding throughout his career
- ❑ Clinically applied auditory research
- ❑ Mentor to leaders in the first generation of audiologists
- ❑ My audiology grandfather

Clinical Scholars Who Built the Foundation of Audiology

James Jerger, PhD

Father of Diagnostic Audiology; Founder of American Academy of Audiology



**“Future of Audiology” Session
ASHA Convention November 1987
New Orleans Louisiana**

- ❑ Moderator: Rick Talbott
- ❑ Panelists
 - James Jerger
 - Lu Beck
 - George Osborne
 - James W. Hall III
- ❑ Packed session in a large ballroom during ASHA Convention
- ❑ At the end of the session, James Jerger proclaimed that we needed an organization *“of, by, and for audiologists!”*
- ❑ The room exploded with loud ovation and a riotous cheering
- ❑ Audiologists proudly and bravely declared their professional independence.

“Future of Audiology” Session 1987 ASHA Convention New Orleans Louisiana

- ❑ There was consensus at the conclusion of the session. We audiologists must ...
 - ✓ Become an autonomous profession
 - ✓ Evolve into a “doctoring” profession
 - Secure Limited License Practitioner status (patients do not need a physician referral to see an audiologist)
 - ✓ Develop an “enriched” educational curriculum (i.e., eliminate “Clinical Fellowship Year or CFY”)
 - Achieve direct access by all patients
 - ✓ Create a professional organization for audiologists only
 - ✓ Develop a new professional governance structure

Beginning of the American Academy of Audiology January 30, 1988 in Houston Texas

American Academy of Audiology - Founders

1987-1989



IN THE BEGINNING...1987-1989

THE FUTURE OF AUDIOLOGY: 20 Years Later!

2009 American Academy of Audiology Convention

Charlotte North Carolina

- ❑ American Academy of Audiology is the largest audiology organization
- ❑ > 12,000 members from around the world
- ❑ Large and exciting annual convention
- ❑ Publications, e.g., *JAAA* and *Audiology Today*
- ❑ Related entities
 - Student Academy of Audiology
 - *American Board of Audiology (ABA)*
 - *ACAE (Accrediting of educational programs)*
- ❑ 17 standing Committees addressing important issue, e.g.,
 - ✓ Business enhancement strategies and techniques
 - ✓ Coding and reimbursement
 - ✓ Ethical practices
 - ✓ Government relations
 - ✓ Professional standards and practices

The Future of Audiology: A View from “Up Over” (United States of America)

Information is not knowledge.

Albert Einstein

**A true sign of intelligence is not knowledge
but imagination.**

Albert Einstein

The Future of Audiology: A View from the United States of America

Common Stated Concerns

- ☐ **Education of Audiologists**
- ☐ **Poor Consumer Awareness of Audiology**
- ☐ **“In-Fighting” Among Professional Organizations**
- ☐ **Lack of Core Values for Audiology and Audiologists**
- ☐ **Diminishing Reimbursement for Services**
- ☐ **Bundling of Clinical Procedures With Low Reimbursement**
- ☐ **Lack of Fiscal Autonomy of Audiologists**
- ☐ **Limited Direct Access to Audiologists**
- ☐ **Possible Increased Physician Oversight**
- ☐ **Emphasis on Products versus Professional Services**
- ☐ **Viability of Profession**

The Future of Audiology: A View from “Up Over” (United States of America)

Ipsa scientia potestas est.
or
Knowledge itself is power.

Sir Francis Bacon

**Today knowledge has power. It controls access to
opportunity and advancement.**

Peter Drucker

The Future of Audiology: A View from the United States of America *Common Concerns (in USA)*

□ Educational of Audiologists

- Total number of graduates of audiology programs is inadequate to meet demand for services (Windmill & Freeman, 2013)
 - ✓ Annual graduation is not adequate to offset attrition and retirement
 - ✓ Growing demand for services with baby boomer population
- Most audiology programs are within speech & hearing departments with a speech pathologist as chair.
 - ✓ Model is for speech pathology masters level education versus audiology with doctoral level education
 - ✓ Audiology students are drawn from CSD pool rather than pre-professional curricula like other health professions

The Future of Audiology: A View from the United States of America *Common Concerns (in USA)*

- ❑ **Educational of Audiologists in the USA**
 - **Audiologists do not control accreditation body that sets standards for most university audiology programs**
 - ✓ **CAA (ASHA)**
 - ✓ **ACAE (AAA)**
 - **There are an excessive number of small graduate programs with inadequate**
 - ✓ **Faculty with expertise in critical areas**
 - ✓ **Clinical instruction and practicum opportunities**
 - **Business education courses are rarely offered, including courses on practice management**

The Future of Audiology: A View from “Up Over” (United States of America)

**Where there is shouting,
there is no true knowledge.**

Leonardo da Vinci

The Future of Audiology: A View from the United States of America

Common Stated Concerns

- ❑ Education of Audiologists
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- ❑ Viability of Profession

The Future of Audiology: A View from the United States of America *Common Serious Concerns*

- **“In-Fighting” Among Professional Organizations**
 - **Audiologists lack a single unified voice and message**
 - **Audiology lacks core values and mission**
 - **Time, energy, and money devoted to intra-professional skirmishes among:**
 - ✓ **AAA**
 - ✓ **ADA**
 - ✓ **ASHA**
 - ✓ **Hearing aid dealers**
 - ✓ **AAOHNS (otolaryngology)**
 - **Fragmented communication with major outside forces, e.g.,**
 - ✓ **Federal government**
 - ✓ **Hearing aid manufacturers**

The Future of Audiology: A View from “Up Over” (United States of America)

If money is your hope for independence, you will never have it. The only real security that a man will have in this world is a reserve of knowledge, experience, and ability.

Henry Ford

The Future of Audiology: A View from the United States of America

Common Stated Concerns

- ❑ Education of Audiologists
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- ❑ Viability of Profession

The Future of Audiology: A View from the United States of America *Common Concerns*

□ Reimbursement Concerns

- **Diminishing third party and CMS (Centers for Medicare & Medicaid services (CMS) reimbursement for services, e.g.,**
 - ✓ **Bundling of separate services into a separate code**
 - ✓ **Comprehensive audiological assessment = ~\$30**
- **Medical necessity requirement for reimbursement versus Limited License Practitioner model**
- **Corporate**
- **Ever changing coding, fee schedule, and reimbursement regulations and policies**

The Future of Audiology: A View from the United States of America *Common Concerns*

□ Reimbursement Concerns (*continued*)

- Ever changing coding, fee schedule, and reimbursement regulations and policies**
 - ✓ CPT and ICD-9 codes**
 - ✓ Geographic Work Adjustment**
 - ✓ MPFS (Medicare Physician Fee Schedule)**
 - ✓ Multiple Procedure Payment Reductions (MPPR)**
 - ✓ RVU (Relative Value Units)**
 - ✓ Physician Quality Reporting System (PQRS)**
 - ✓ HCFA (Health Care Financing Administration)**
 - ✓ NPI (National Provider Identifier) vs. “Incident to” billing**

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Video: Florida Medical Hearing Centers in the Press

Paul Campoamor of Florida Medical Hearing Centers Speaks to FOX 35 News about hearing loss among young adults and middle-aged men and shows new advances in hearing aids.

[READ MORE](#)



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Digital Hearing Aid Specials:

100% Digital ITE (In-the-Ear) Fits up to 40 db Loss NOW \$395 Was - \$790	100% Digital CIC (Completely-in-Canal) Fits up to 40 db Loss NOW \$495 Was - \$990	100% Micro CIC (Completely-in-Canal) Fits up to 40 db Loss NOW \$595 Was - \$1190	100% Digital Open-Fit BTE (Open Fit Behind-the-Ear) Fits up to 40 db Loss NOW \$595 Was - \$1190	Special Offer! EXCLUSIVELY AT Xylo4 Was \$995 Now Only \$395 * While Limited Stock Lasts Click For More Info
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HOME OF THE 7 DAY FREE HEARING AID TRIAL!

The Future of Audiology: A View from the United States of America *Common Concerns*

□ Reimbursement Concerns (*continued*)

- Internet hearing aid sales
- “Big box” model for hearing aid dispensing, e.g., Costco
- Buyer groups for wholesale hearing aid purchasing
- Hearing aid manufacturers
 - ✓ Developing a network of hearing aid centers
 - ✓ Buying independent audiology practices
- Other new “start up” corporations
 - ✓ Developing a network of hearing aid centers
 - ✓ Buying independent audiology practices
- Other changes in the hearing care distribution system, e.g.,
 - ✓ Optometrists operating “Vision and Hearing” centers

The Future of Audiology: A View from “Up Over” (United States of America)

“I suddenly realized that Keynes and all the brilliant economic students in the room were interested in room were interested in the behavior of commodities while I was interested in the behavior of people.”

***(Peter Drucker in 1934 after listening in to a speech
by John Maynard Keynes at Cambridge England)***

Drucker, Peter F., *The Ecological Vision*, 1993, pp. 75-76

The Future of Audiology: A View from the United States of America

Common Stated Concerns

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The Future of Audiology: A View from the United States of America *2014 AAA Convention*

- ❑ **The Great Debate: The Current Model for Audiology Clinical Practice Where Product Sales Seem to Be the Center of Our Existence is an Appropriate Model to Sustain the Future of the Profession**
- ❑ **Presenters**
 - **David Citron, PhD**
 - **Robert DiSogra, AuD**
 - **Richard Gans, PhD**
 - **Richard Roberts, PhD**
 - **Barry Freeman, PhD**
 - **Myles Kessler, AuD**

The Future of Audiology: A View from the United States of America *2014 AAA Convention: The Great Debate*

- ❑ Focus on service not selling more widgets (hearing aids)
- ❑ Dangers of putting all hearing eggs in your basket
 - Hearing aid sales are not skyrocketing as we enter the baby boomer era. Why?
 - ✓ Consolidation of practices
 - ✓ Internet hearing aid sales
 - ✓ Big box stores
 - ✓ OTC sales
 - ✓ PSAPs (personal sound amplification products)
 - ✓ New disruptive technology, e.g., smart phones with apps for self programming)
- ❑ Emphasize the “why” and the “how”, not the “what”

**The Future of Audiology:
A View from the United States of America
*2014 AAA Convention: The Great Debate***

**The biggest mistake we
currently make may be ...
Making widgets (hearing
aids) when the focus of our
attention, when the focus
should be ...**



The Future of Audiology: A View from the United States of America *2014 AAA Convention: The Great Debate*

**The biggest mistake we
currently make may be ...**

**Making widgets
(hearing aids) the
focus of our attention,
when the focus should
be ...**

**Providing full
audiology services
and maximizing
communication!**



The Future of Audiology: A View from “Up Over” *Opinions from Selected Audiology Leaders (USA)*



**The Future of Audiology:
A View from the United States of America
*Bettie Borton, PhD (President of AAA)***

- ❑ We need to decide who and what we are. What are our core principles and values?
- ❑ Currently we are fractionated and speaking with many uncoordinated voices.
- ❑ There must be a unified global network for audiology. Manufacturers are thinking and acting globally.
- ❑ We must define and maintain an appropriate and productive relationship with industry. We all serve patients and we all want to grow the clinical service market. We should work collaboratively and always tie the professional to the product.

**The Future of Audiology:
A View from the United States of America
*Devin McCaslin, PhD (AAA Board Member)***

- ❑ Reimbursement continues to decline for staple diagnostic procedures
- ❑ Furthermore, generation of codes for new tests (e.g., video head impulse testing, canalith repositioning, VEMP) has stalled.
- ❑ Direct access is nice, but there won't be a profession left to access if we can't get paid.
- ❑ Soon hearing aids will be very cheap. They will be cool and linked to iPhones. They won't be called hearing aids anymore.
- ❑ Companies with smart people culled from Silicon Valley are emerging with low cost amplification systems that will be sold in pharmacies and big box stores.

The Future of Audiology: A View from the United States of America *Devin McCaslin, PhD (continued)*

- ❑ Pediatric vestibular assessment is an area of enormous opportunity. Audiologists need to embrace it.
- ❑ As audiologists we are charged with identifying and treating hearing loss in children. We should be diagnosing vestibular impairments as well, including in patients with CIs.
- ❑ The AuD killed our research based ... no research base means no profession. As editor of JAAA I see the quality of research declining.
- ❑ Audiology training is abysmal. Programs are slowly closing across the country as universities evaluate the value of audiology programs.
- ❑ Tele-practice is here and it is the real deal. You better have one of these programs or you will be left behind.

The Future of Audiology: A View from the United States of America

Frank Musiek, PhD

- ❑ **Diagnostic audiology has lost ground in general**
 - **Evoked potentials are not utilized by audiologists as they once were**
 - **Audiologists need to more concerned about the “health” of the auditory system and not just measuring thresholds**
 - **There is a lack of knowledge about disorders of the auditory-vestibular systems.**
- ❑ **Where diagnostics has gained**
 - **CAPD has gained visibility and demand**
 - **Research & education on CAPD is on the upswing**
 - **A number of MDs (neurologists) are interested in CAPD**
 - **More audiologists are becoming involved with CAPD**

The Future of Audiology: A View from the United States of America *Logical and Feasible Solutions to Common Concerns*

- ❑ Education Reforms are Essential and a Top Priority
- ❑ Aggressively Market Audiologists as *THE* Hearing Experts
- ❑ Relation with Other Professional Organizations
 - Open and constant communicate
 - Tirelessly seek consensus on core issues
 - “Speak with one voice”



The Future of Audiology: A View from the United States of America *Logical and Feasible Solutions to Common Concerns*

- ❑ **Broaden Hearing Health Care Profession**
 - Bring hearing aid dispensers into audiology fold
 - Support expansion of audiology assistants and technicians
- ❑ **Return to Original Audiology Missions**
 - Diagnosis of hearing loss and related disorders
 - Rehabilitation of hearing loss with optimal outcome



The Future of Audiology: A View from the United States of America *Increased Focus on Exclusive Audiology Services*

- ❑ Evidence-Based Rehabilitation
 - With or without hearing aids
 - Auditory and cognitive rehabilitation in elderly population
 - Enhanced listening skills
- ❑ Pediatric Services
 - Hearing loss
 - Vestibular and balance deficits
- ❑ Vestibular Assessment and Rehabilitation in Adults
- ❑ Auditory Processing Disorders
- ❑ Tinnitus and Hyperacusis

The Future of Audiology: A View from the United States of America

- “Do you want to buy a cheap hearing aid or with audiology services do you want to
 - Communicate effectively
 - Enjoy better quality of life
 - Live happier and healthier
 - Avoid falls and maintain mobility
 - Improve your child’s school performance
 - No longer hear annoying tinnitus
 - Tolerate everyday loud sounds



**The Future of Audiology:
A View from the United States of America
*Building a Secure Future***

**Communication
Quality of Life**

---- Diverse Clinical Services ----

**Diagnostic Rehabilitation Pediatric
Adult Tinnitus Vestibular Industry**

----- Education -----

Basic Science Clinical Business

Research

**Professional
Unity**

**Global
Audiology**

The Future of Audiology: A View from the United States of America

Thank You!

