October 12, 2023

Dr. Angela Ciccia
Search Committee Chair
Communication Sciences Program, Department of Psychological Sciences
Case Western Reserve University
11635 Euclid Avenue
Cleveland, OH 44106

To Dr. Angela Ciccia and search committee members:

I am writing to express my strong interest in the Assistant Professor position in the Communication Sciences Program of the Department of Psychological Sciences at Case Western Reserve University as advertised on the CAPCSD.org website. Currently, I am a postdoctoral researcher at the Waisman Center of the University of Wisconsin-Madison. I earned my doctoral degree in Communication Sciences and Disorders (CSD) from the University of Memphis in December 2020. I hold an active Certificate of Clinical Competence through the American Speech-Language Hearing Association (ASHA). I am eligible for Ohio state licensure in speech-language pathology (SLP) and possess a total of nine years of clinical experience as a full- and part-time SLP in school and medical settings. These experiences have uniquely prepared me for a successful career as a researcher and leader in CSD.

My **research program** is dedicated to advancing the early detection of speech motor and communication impairments in children with cerebral palsy (CP). This work is imperative to support clinical decision making to facilitate targeted early interventions for augmentative and alternative communication (AAC). To date, my work has focused on the study of vocal precursors of speech differences in infants before the onset of first words in various neurodevelopmental conditions, including CP, autism, preterm birth, and tuberous sclerosis. This research has utilized human listening of infant vocal categories as the gold standard measure of prelinguistic vocal development, recorded in laboratory and home settings. I am committed to incorporating and validating advanced technologies into my research, such as the Language Environment Analysis (LENA™) software and increasingly advanced mobile application technology. I recognize the significance of building community engagement into the research process. I am actively involved in research collaborations with the AAC clinic at the Waisman Center, and an ongoing CP clinic partnership based in Memphis, Tennessee initiated in 2018. I am enthusiastic about the prospect of building local connections with the Cleveland Clinic and United Cerebral Palsy to foster an inclusive interdisciplinary research environment, cultivate meaningful relationships across the diverse community, and facilitate the translation of evidence-based resources that are accessible to all stakeholders in the CP community throughout Ohio.

I am also actively engaged in a **secondary line of research** and service to the field of CSD dedicated to promoting open science practices. Alongside a group of early career scientists, I co-founded CSDisseminate in 2020 which has adopted a team science approach to reduce barriers to research access through promoting alternative “green” open access methods. This initiative has gained considerable recognition across international communities in CSD, highlighting the critical nature of free public access to science.

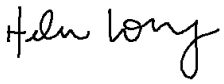
Throughout my academic journey, I have made significant contributions to research, including 19 publications (10 as first author) and 27 presentations as first author across nine conferences, including ASHA and the American Academy of Cerebral Palsy and Developmental Medicine (AACPDM). My research has attracted the attention of prestigious funding mechanisms, including two highly competitive institutional postdoctoral fellowships at UW-Madison through the Waisman Center (NICHD-T32) and Institute of Clinical and Translational Research (NCATS-TL1), an NIDCD loan repayment award, and an ASHFoundation New Investigators Research Grant. These awards underscore the recognition and ongoing support for a program of research aiming to improve early detection and intervention of communication considerations in children with CP.

I am **well-prepared to teach** courses in articulation and phonological development and disorders, speech and language development and disorders in infants and toddlers, and AAC. I am open to discussing teaching other topics as needed. I am also highly interested in engaging with initiatives driving interprofessional education, including the Schubert Center for Child Studies and the Office of Interprofessional and Interdisciplinary Education and Research, to facilitate translational and multidisciplinary learning across a diverse body of students and health care professions. This is of particular interest to me as a clinical researcher focused on children with a diagnosis of CP, one that necessitates a team-based approach across health care and education specialties to enhance lifelong participation and outcomes.

Beyond research and teaching, I am **eager to provide service** to the department and the CP community in the area. Currently, I am the postdoctoral representative for the UW-Madison Committee on Disability, Access, and Inclusion. In this role, we consult with university groups to enhance instructional, physical, and digital accessibility to create an equitable education environment. I am an active member of the AACPDM where I serve on the Membership Committee. There is a large contingent of AACPDM members throughout Ohio directly involved in cutting-edge research and care for people with CP. Across this community, I plan to develop long-term research connections to extend our reach across urban and rural communities. Furthermore, I am enthusiastic about promoting open science initiatives within the department and look forward to collaborating with the university libraries and departments across the university that are interested in advancing these efforts.

I am sincerely grateful for your consideration. My research on the early detection of speech motor and communication impairments in children with CP aligns well with the neurological expertise of faculty members across the Department of Psychological Sciences, including with Dr. Angela Ciccia in cognitive rehabilitation, and Dr. Anastasia Dimitropoulos in engagement in children with neurodevelopmental disorders. My dedication to interprofessional and interdisciplinary research and education directly complements the goals of the Developmental, Cognitive, and Affective Sciences program, and I am eager to contribute to these endeavors through my clinical and translational research. Please feel free to reach out to me at helen.long@wisc.edu if you have any questions or require any additional information.

Sincerely,



Helen Long, PhD, CCC-SLP
Postdoctoral Researcher
Waisman Center, University of Wisconsin-Madison

Helen Long, PhD, CCC-SLP

Research Statement

Programmatic research: My research program aims to improve the early detection of speech motor and communication impairments in infants at risk for cerebral palsy (CP) to facilitate targeted early interventions for augmentative and alternative communication (AAC) in this population. While the typical stages of vocal development in infants are well-documented, there is limited research on early speech development in CP below the age of two years. Building on my doctoral and postdoctoral research, I have established a research line that examines early vocal patterns and milestone trajectories in infants at risk for CP as young as six months of age. This involves human coding of infant prelinguistic vocal behaviors to identify a risk of later speech motor and broader communication impairments. The translational aspect of my research is central to my long-term career objectives to 1) develop validated screening and diagnostic tools to support early detection of speech impairment in CP, and 2) expand the current early detection guidelines for CP to encompass the domain of speech development. This research is critical to enhance communicative participation and outcomes in children with CP.

Evolutionary Origins of Language: My doctoral dissertation incorporated an evolutionary-developmental biology perspective to investigate how infants signal developmental information to caregivers through vocalizations under the guidance of Dr. D. Kimbrough Oller. Key findings from this work underscored the potential of vocal imitation as a signal of information and emphasized the significance of independent vocal play in speech articulation development (Long et al., 2019, 2020). Additionally, the research highlighted that infants produce their most advanced vocal forms during interactive periods, showcasing their capacity to convey developmental information to caregivers (Long, Ramsay, et al., 2022). This work provided me with critical training in large-scale student training for human coding of infant vocal behaviors, laboratory team supervision, and grant management.

Prelinguistic Predictors of Communication Differences and Impairment: My doctoral research formed the foundation for my ongoing study of vocal predictors of communication disorders in clinical populations as it suggests that atypically developing infants may be less likely to produce advanced vocal forms during interaction, and caregivers may be attuned to atypical development. My research in this area has generated evidence indicating vocal precursors of communication impairments across a variety of neurodevelopmental conditions, including autism (Long et al., under review), tuberous sclerosis (Gipson et al., 2021), and preterm birth (Oller et al., 2019). This work was foundational to build a comprehensive understanding of prelinguistic vocal differences across multiple speech, language, and communication differences or disorders later in life.

Speech and Communication Development in CP: My postdoctoral work with Dr. Katherine Hustad began with a focus on speech and communication development in school-aged children with CP using standardized assessment, educational data, intelligibility measures, and naturalistic interaction data. This research revealed a disconnect between deficit profiles and school-based treatment goals in children with CP, underscoring the need for individualized interventions (Koopmans et al., 2021). We also found that children with CP who have less functional speech abilities at young ages are more likely to demonstrate limited speech growth over time, emphasizing the need for the early implementation of AAC in these children (Long, Mahr, et al., 2022). This research has revealed the critical need for the detection of speech impairments in children with CP at even younger ages. I am also actively involved in community-based research collaborations with the AAC Clinic at the Waisman Center to study

the impact of AAC evaluation training for speech-language pathologists (SLPs), and a regional CP clinic in Memphis, Tennessee to study the trajectory of early speech and language milestones in children with CP. These collaborations have instilled an appreciation for community engagement to ensure that our research is more representative of the communities we serve.

Prelinguistic Vocal Biomarkers in CP: My postdoctoral research has largely centered on the study of vocal predictors for speech motor impairment in CP. I conducted a scoping review of research on this topic and found few high-quality studies in CP that had a median publication year of 1999, despite the exponential advancement of technology to measure infant vocalization (Long et al., in press). My first study in this area was a case study on the emergence of mature consonant-vowel syllable forms in infancy. We found a low proportion of mature syllables in two infants with CP followed longitudinally from 5 to 16 months compared to ten typically developing infants, using LENA™ home recording technology (Long et al., 2023). In a group of ten infants prospectively identified for a risk of CP, I examined their change in rate of consonant-vowel vocal forms from 13 to 16 months and found an overall higher rate of immature syllables in infants with CP and in those with ongoing motor delays but no diagnosis, compared to those whose motor delays later resolved, suggestive of a potentially early sign of dysarthria in this population (Long & Hustad, 2023). These preliminary studies support a promising future to develop a longstanding line of research through the unique study of infant vocal production to detect speech motor and communication impairments in children with CP.

Long-term research goals. My research has set the stage for my long-term goals of developing validated screening and diagnostic tools to support the early detection of speech impairment in CP and expanding the early detection guidelines for CP to encompass the domain of speech development. This is crucial for clinical decision-making regarding AAC implementation for children with CP at the youngest possible age. In my role as an Assistant Professor, I plan to immediately apply for an early career investigator R21 award through the NIDCD to collect pilot data using daylong home recording technology, paving the way for interdisciplinary R01s. These future studies will examine 1) social determinants of health contributing to vocal differences across children, and 2) the relationship between vocal development and other developmental processes, e.g., language comprehension, cognition, feeding and swallowing, early AAC skills, and motor skills. I plan to engage community advisory councils to support the ongoing development of my research. Ultimately, the translational aspect of my research will directly support earlier speech referrals and SLP differential diagnostic and decision-making for targeted interventions to improve communication outcomes in children with CP. I would be thrilled to co-investigate this work alongside faculty throughout the DCAS program and with community centers such as the Cleveland Clinic and United Cerebral Palsy.

Summary: My research program is uniquely positioned to advance our understanding of prelinguistic and early speech development in CP and to translate this research into clinical practice to support SLPs, children with CP, their families, and their communities. By identifying predictors of speech impairments, I aim to develop clinical tools that will facilitate early diagnosis and targeted intervention planning to enhance communicative participation outcomes for people with CP. This work aligns with the goals of the Communication Sciences program in the Department of Psychological Sciences at Case Western Reserve University by bridging the gap between research and practical applications across the fields of communication and developmental sciences.

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Helen Long, PhD, CCC-SLP

Teaching Statement

I am committed to establishing a **safe and inclusive learning environment** that fosters independent critical thinking in the next generation of researchers and clinicians in communication sciences and disorders (CSD). This commitment aligns with Case Western's core values which emphasize promoting civility, open dialogue, continuous learning, and interdisciplinary excellence.

My expertise in cerebral palsy (CP) has equipped me to **effectively teach** a range of undergraduate and graduate courses in CSD, including articulation and phonological development and disorders, speech and language development and disorders in infants and toddlers, and augmentative and alternative communication (AAC). I am open to discussing teaching other courses as needed. During my doctoral training, I developed annotated syllabi for two courses as part of my comprehensive exams: Phonological Disorders and AAC. I constructed the course material around ASHA's learning standards and expected outcomes. Individual assignments and assessment methods were meticulously designed to align with the course objectives and cater to diverse learning styles. Using this method, I created a toolbox of teaching and learning strategies to implement across future courses beyond the classic lecturing style. This includes problem-based learning, diverse case studies, and involving a variety of stakeholders such as people with lived experiences and interdisciplinary experts as guest lecturers, collaborators, and consultants.

I **developed and taught two courses** during my PhD program. The first full course was a graduate-level *Introduction to Research* course. I independently developed and implemented this course, although I was not instructor of record (IoR: Eichorn). I implemented the "I do, we do, you do," technique, guiding students to independently think critically about research. We also incorporated discussions on diversity and inclusion in research, cultivating a critical perspective in students. Specifically, I incorporated group discussions on topics addressing diversity, inclusion, and the implications of ableism in research during our evaluation of articles (e.g., measuring social constructs like gender and socioeconomic status, race versus ethnicity representation, disability considerations for research designs, and ableist eligibility criteria). Through this practice, I prioritized nurturing a critical eye in students to interpret these concepts alongside the typical review of research rigor.

The second course was an undergraduate *Introduction to Autism* course, for which I was instructor of record. I structured the course using Universal Design of Learning (UDL) principles (CAST, 2018) to support different learning styles. For example, a final project for this class asked students to design their own symbol for the autistic community based on information created and developed by the autistic community, and to write a short paper on how this symbol embodied their learning of the autistic perspective. I frequently incorporate videos and guest lectures from people with lived experiences of communication differences and disorders to inform and enrich student learning. I also incorporated live, anonymous polling to gauge student knowledge prior to sharing new material. This proved to be highly effective with students coming to class with different backgrounds and majors. I am confident that structuring a course using UDL methods supports diverse learning styles and parallels the principles of neurodiversity. I enthusiastically plan to continue implementing these principles to engage students as I design new courses.

In my teaching experiences, I **prioritize critical thinking** using inclusive teaching practices and problem-based learning strategies. I also regularly reassess my methods to ensure that all

students feel comfortable sharing their knowledge and experiences. An example of this is to incorporate comprehensive case studies from a diverse set of individuals to encourage open discussion around clinical decision-making, ethical considerations, and personal reflections on biases and assumptions.

My approach to teaching also aligns with my **principles of research mentoring**, which are based around values supporting communication, accountability, and openness.

1. **Communication** is vital for effective mentoring. I use Expectations Documents to communicate my goals and expectations to foster a safe environment for group discussions. I believe these documents should evolve over time to allow room for continual growth. Developing this document with students from the beginning can promote a safe environment to mitigate confusion and difficult conversations around challenged expectations.
2. **Accountability** is key for successful teaching and mentorship. I support 1) flexible deadlines as allowed by the department to support students with a range of obligations in and outside of their coursework, and 2) self-assessment activities to encourage personal self-reflection. I believe these allowances and activities ground ownership of personal behavior, learning, and independent growth. It can be meaningful to connect individual students' goals to my own instructional goals to keep myself accountable in ensuring that instructional activities match the needs of groups of students over time. Accountability is a critical professional skill; thus, encouraging this level of competence early in the learning process contributes to students' long-term independence throughout their professional career.
3. **Openness** is integral to developing relationships with students and to cultivate an appreciation for people from different backgrounds and abilities in the future generation of speech and language clinicians. Openness involves embracing continuous learning, diverse experiences, and accepting and applying constructive feedback. By using inclusive teaching practices and modeling inclusive behavior, I aim to create a safe environment that encourages mutual respect and the free exchange of ideas in the classroom and the laboratory. I also seek to model openness to new experiences by participating in outreach initiatives that engage learning opportunities across students within the community.

As educators, we must maintain a "**lifelong learner mindset**" (Moore, 2020) to best meet the needs of our students and people we serve in CSD. This requires ongoing personal education, reflection, and growth with the evolving culture of academia, including in the scholarship of teaching and learning, societal changes, and the ability to acknowledge that we do not (and cannot) know everything. I firmly believe that adhering to this philosophy will ensure successful learning outcomes for students throughout my career.

References

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Helen Long, PhD, CCC-SLP

Diversity Statement

I am deeply committed to fostering diversity, equity, inclusivity, and accessibility in the field of communication sciences and disorders (CSD). As a white, cisgender female in a profession primarily composed of individuals from a similar demographic, I recognize the importance of continually evolving to meet this commitment. My professional journey has taken me through privileged areas of Massachusetts to underserved regions of Tennessee, prompting reflection on the circumstances that have shaped my life and the lives of the people with whom I work. I intend to serve as an example for the next generation of researchers and clinicians as they work with people who have different backgrounds, perspectives, and abilities.

In the realm of **research**, I am dedicated to addressing the underrepresentation of diverse voices in the field of CSD, and in research conducted with people who have cerebral palsy (CP). Not only is CP an understudied population in CSD, but existing research has predominantly studied a white, mid-socioeconomic demographic. As a doctoral student, I took a proactive step by initiating a research collaboration with a neuromuscular clinic in the demographically diverse community of Memphis, Tennessee to diversify the representation of people with CP. I intend to continue to prioritize representation across Ohio communities in my research at Case Western. To support this goal, I plan to apply for community engagement grant funds, including from the Patient-Centered Outcomes Research Institute (PCORI) and NIH diversity supplements to ensure financial support for equitable participation and stakeholder engagement in research for families of children with CP. Additionally, I passionately believe that science is a public commodity, and yet a large majority is paywalled to many communities, especially international communities. I have co-organized a group of early career scientists in CSD dedicated to developing resources to support the legal open sharing of published research for equitable access for all people.

Regarding **teaching and mentorship**, I use equitable teaching practices to support an increasingly diverse student population in CSD and engage students in community-informed strength-based dialogue. I incorporate Universal Design of Learning principles into teaching activities that empower flexible learning styles in students. I firmly believe that the backgrounds and perspectives of a diverse student body and community are foundational to a rich learning environment conducive to nurturing active and reflective listening, critical thinking, and assertive communication in students. To achieve this, I plan to create an environment where every student feels valued, respected, and empowered to share their lived experiences, ask challenging questions, and grow in a safe environment. This will continue to involve incorporating strengths-based problem-solving, project-based learning using diverse case studies, and fostering student engagement across community activities.

In summary, I am committed to engaging my personal and professional growth as an ally and advocate for diversity, equitability, inclusivity, and accessibility in research and educational opportunities across the CSD, Case Western, and Cleveland community. I am prepared to actively listen to feedback to support this growth and be held accountable for my actions to align with the principles of social justice. I firmly believe that an inclusive and accessible academic environment is essential for fostering cultural humility and active problem-solving in structurally competent researchers and clinicians. I am eager to work with Case Western's faculty, staff, students, and local community to further this mission and create an inclusive research and clinical environment where all voices are heard, valued, and celebrated.

Category and Item	Justification	Cost	Quant (Yrs)	Total
SPACE				
Personal office	Independent study space		1	
2 rooms for data collection (observational recording studio and suite)	Laboratory-based data collection		2	
Dedicated student laboratory workroom	Student space for research coding projects		1	
Access to conference room for weekly lab meetings	Ongoing meetings to discuss team projects and logistics		1	
PERSONNEL AND PARTICIPANTS				**$ 55,820.00**
2-month summer salary for years 1-2 (2025/2026)	Dedicated research time in summer semester	$ 10,000.00	2	$ 20,000.00
2 Research Assistants for years 1-2 ($12 at 10 hours/36 wks)	Student-assigned research activities and start-up lab management	$ 8,640.00	2	$ 17,280.00
Compensation of $50/participant/visit (~5 total) for 60 participants	Behavioral research participation	$ 250.00	60	$ 15,000.00
Home visit and participant travel mileage (50 mile radius, 30 participants)	Remote/home data collection for participant or staff travel	$ 70.00	30	$ 2,100.00
Shipping and mailers ($12 send and return total for 120 recordings)	Shipping costs for remote data collection	$ 12.00	120	$ 1,440.00
PERSONAL OFFICE FURNITURE, EQUIPMENT, SUPPLIES				**$ 2,050.00**
Personal laserjet printer	Ongoing research activities	$ 300.00	1	$ 300.00
High quality speakers for desktop	Co-listening for training and research coding activities	$ 200.00	1	$ 200.00
Wired noise-cancelling headphones	Personal research perceptual-acoustic coding activities	$ 200.00	1	$ 200.00
Standing desk riser	Ergonomic productivity station	$ 750.00	1	$ 750.00
File cabinet	Personal secure data and file storage	$ 600.00	1	$ 600.00
LABORATORY, FURNITURE, EQUIPMENT, AND SUPPLIES				**$ 91,400.00**
VALT AV recording equipment and software - Intelligent Video Solutions	In-laboratory observational behavioral research projects	$ 15,000.00	1	$ 15,000.00
ROAM Portable AV recording kit - Intelligent Video Solutions	Remote home observational behavioral research projects	$ 12,000.00	1	$ 12,000.00
LENA SP software program and device licenses for 2 workstations	Automated detection technology for human vocal behavior	$ 8,000.00	2	$ 16,000.00
LENA daylong recording devices	Remote data collection and automated detection technology	$ 500.00	6	$ 3,000.00
Noldus The Observer XT Behavioral Software Package	Vocal coding and behavioral analysis	$ 10,000.00	1	$ 10,000.00
External data storage server/hard-drive	Secure data storage	$ 6,000.00	1	$ 6,000.00
Student computer workstations, including mouse and keyboard	Secure student research activity environment	$ 1,500.00	4	$ 6,000.00
Laboratory recording suite computer workstation	In-laboratory video/audio recording management	$ 1,500.00	1	$ 1,500.00
Infant-child OAE screener and calibration	Infant and child hearing screening	$ 6,000.00	1	$ 6,000.00
iPads for in-lab and remote data collection and participant intake	Secure data collection portal	$ 1,500.00	3	$ 4,500.00
high-quality wireless microphones	Laboratory and remote data collection	$ 600.00	4	$ 2,400.00
Noise-cancelling headphones	Student research perceptual-acoustic coding activities	$ 300.00	4	$ 1,200.00
high quality computer speakers	Co-listening for training and student research activities	$ 200.00	4	$ 800.00
laser-jet printer/fax/scanner	Ongoing research activities	$ 300.00	1	$ 300.00
LENA child clothing and accessories	Laboratory and remote data collection	$ 50.00	20	$ 1,000.00
Chairs for student workstations	Student research activities at secure lab workstations	$ 300.00	5	$ 1,500.00
Five-drawer lateral locking file cabinet	Secure data storage of physical PHI documents	$ 600.00	2	$ 1,200.00
Child toys, books, baby monitor, playroom items	Laboratory and remote data collection accessories	$ 1,000.00	1	$ 1,000.00
Rocking chair	Laboratory naturalistic data collection environment item	$ 500.00	1	$ 500.00
5 shelf bookcase	Student, researcher, lab book material storage	$ 250.00	2	$ 500.00
consumables (batteries, paper, binders, pens, pencils, stapler, etc.)	Ongoing research activities	$ 1,000.00	1	$ 1,000.00
ASSESSMENT BATTERIES				**$ 4,900.60**
Peabody Picture Vocab. Test-5 & Expressive Vocab. Test-3 Combo Kit	Child receptive and expressive standardized testing	$ 1,518.80	1	$ 1,518.80

Category and Item	Justification	Cost	Quant (Yrs)	Total
Preschool Language Scales-5	Child receptive and expressive standardized testing	$ 501.75	1	$ 501.75
Preschool Language Scales-5 Screening Test	Child receptive and expressive pre-screening	$ 222.50	1	$ 222.50
Arizona Articulation and Phonology Scale-4 Print/Digital Combo Kit	Child articulation and phonology standardized testing	$ 472.00	1	$ 472.00
Children's Communication Checklist-2	Child communication testing	$ 273.60	1	$ 273.60
Pediatric Eval. Of Disability Inventory Manual & Scoring Forms	Child participation and functional delay testing	$ 183.00	1	$ 183.00
Pediatric Eval. Of Disability Inventory Computer Adaptive Test	Child participation and functional delay testing (motor adapted)	$ 150.00	1	$ 150.00
Communication and Symbolic Behavior Scales	Infant communicative behavior and symbolic development testing	$ 610.95	1	$ 610.95
Communication and Symbolic Behavior Scales - Developmental Profile	Infant communicative behavior and symbolic development screener	$ 399.00	1	$ 399.00
MacArthur Bates Communicative Development Inventories -3	Child vocabulary knowledge testing	$ 140.00	1	$ 140.00
Ages & Stages Questionnaire-3	Early child milestone monitoring	$ 330.00	1	$ 330.00
Focus on the Outcomes of Communication Under Six - 34	Child communicative participation testing	$ 99.00	1	$ 99.00
PROFESSIONAL DEVELOPMENT AND PUBLISHING				**$ 23,595.00**
Conference travel and registration (2/year) for years 1-2	CEUs, networking, build CWRU reputation and visibility	$ 4,000.00	2	$ 8,000.00
Student conference travel and registration (2 students) for years 1-2	student research dissemination ($1500 per student)	$ 3,000.00	2	$ 6,000.00
Open access article processing charges (1/years 1-2)	Open access publishing	$ 3,000.00	2	$ 6,000.00
Early CP Health Summit and General Motor Assessment training	continuing ed, building connections with CP early detection network	$ 2,000.00	1	$ 2,000.00
American Academy of Cerebral Palsy and Developmental Medicine membership (AACPDM) dues	Annual membership dues per year, access to *Dev Med Child Neurol* journal (primary CP journal)	$ 400.00	2	$ 800.00
American Speech-Language Hearing Association (ASHA) membership dues, SIG membership, CE registry	Annual certification/membership dues per year, access to *ASHA Journals* (Primary CSD publisher in US)	$ 325.00	2	$ 650.00
International Congress of Infant Studies (ICIS) membership dues	Biannual membership dues, access to *Infancy* journal	$ 145.00	1	$ 145.00
EXPERT CONSULTATION				**$ 15,000.00**
Biostatistical consultation	$250/hr; statistical analysis and consultation	$ 250.00	50	$ 12,500.00
Laboratory AV recording suite installation and consultation	$250/hr; Intelligent Video Solutions installation and technical support	$ 250.00	10	$ 2,500.00
SUBTOTAL				**$ 192,765.60**
Shipping and handling (2%)	Shipping costs for physical purchase orders (non-profit tax exempt)			$ 1,967.01
TOTAL				**$ 194,732.61**