



Program Guide

Newborn Individualized Developmental Care and Assessment Program (NIDCAP)

An Education and Training Program for Health Care Professionals

- **NIDCAP Education and Training for Professionals**
- **Consultation and Guidance in NIDCAP Care Implementation and Integration into the Nursery**
- **NIDCAP Nursery Certification**
- **Establishing a NIDCAP Training Center and Becoming a NIDCAP Trainer**
- **APIB Behavioral Assessment Training**
- **Becoming an APIB Trainer**
- **Becoming a NIDCAP Master Trainer**

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Table of Contents

Introduction	4
Background	4
Overview of Specific NIDCAP Training Components and Levels	6
NIDCAP Education and Training of Professionals	7
Consultation and Guidance of Developmental Care Implementation and Integration	12
NIDCAP Nursery Certification	13
Establishing a NIDCAP Training Center	14
APIB — Behavioral Assessment Training	15
Becoming an APIB Trainer	19
Becoming a NIDCAP Master Trainer	20
Literature Cited	20
Further Training Documents Available	22
NIDCAP Training Center Directory	23
APIB Training Center Directory	51
NIDCAP Required Readings	55
NIDCAP Recommended Readings	60
APIB Required Readings	64

Introduction

Advances in perinatal and newborn intensive care have greatly decreased the mortality rates for preterm newborns and newborns otherwise at high risk for developmental compromise. The challenge confronting healthcare professionals who care for these infants and their families is not only to assure the infants' survival, but to optimize their developmental course and outcome. Through assessment and documentation of infants' competence and behavioral thresholds to disorganization, a better understanding of the developing nervous system may be gained. This in turn may lead to the provision of developmentally appropriate experiential opportunities for the newborn in the hospital setting and the provision of supportive care for the infant's family. Structuring a physical and social environment supportive and nurturant of the individual infant's immature or dysmature nervous system and of the family's sense of competence becomes a critical component of care in the newborn intensive care unit (NICU) and of follow-up care in the home and the community. The Newborn Individualized Developmental Care and Assessment Program (NIDCAP) has been established to provide education and specific training in developmental observation and assessment for health care professionals, who have responsibility for the long- and short-term care of high-risk newborns and preterm infants and their families, and for staff members, who are involved in the implementation of their care on a day-to-day basis. A key focus of the NIDCAP program is the educational and consultative support and assistance to NICU and special care nursery (SCN) settings towards effective delivery of intensive and special care in a neurodevelopmentally supportive, individualized, and family-centered framework. The NIDCAP Federation International (NFI), a not for profit incorporated international professional membership organization, is the agency that safeguards the quality of all training and education in the NIDCAP model. It is the certifying agency for all levels of NIDCAP training.

Background

The goal of education and training in the developmental approach to care is to bring about a shift from protocol-based to strategic process thinking and from task-oriented to relationship-based care. The developmental approach to care sees infants as active structurers of their own developmental trajectories, supported by the ongoing co-regulation process of infant and parent development. The newborn's three evolutionarily adapted and inherited niches, biologically expected for good-enough development, are the mother's womb, the parents' body and mother's breast, and the family's social group. Preterm newborns unexpectedly have removed themselves from the intrauterine environment and its complex co-regulatory inputs. By virtue of the need for hospital care, they, as well as high-risk fullterm newborns in need of hospitalization, are separated from the expected intimate parent and family environment for prolonged periods. Developmental care takes advantage of the infant's expectation for co-regulatory care and for a close, emotionally attuned and invested relationship. It sees an opportunity for the increased effectiveness of intensive care delivery in supporting the realignment and co-regulation of the newborn and the family. Implementation of intensive care in such a framework requires knowledge and understanding of infant, parent and family development, and of the interplay of the infant's medical issues with the developmental process. In order to achieve multi-disciplinary collaboration in developmental care implementation, appreciation of each of the professional disciplines coming together in the NICU is necessary, as well as understanding of the organizational structures of the hospital and the nursery. Furthermore skill and sensitivity are required in supporting and nurturing infant and family. Professionals in such a complex setting must be committed to further their own personal growth, self-knowledge and emotional maturity. The NFI seeks to provide information, education, and support towards those aspects by provision of reading materials as well as didactic presentations, observation training, and opportunities for individual and system guidance and consultation. It is the responsibility of each professional who participates in training to create additional opportunities as indicated. It is the responsibility of the leadership in a setting to create opportunities for staff development, as well as enhancement of

organizational and physical structures as indicated. NIDCAP training entails systems change. Therefore, the specific training of individuals at a setting occurs only once the setting has developed sufficient leadership support, institutional commitment, and a five-year education, training and staff development plan in order to effectively support the changes in environment and care that are required for the successful implementation of developmental care in the NIDCAP model. Detailed observation and interpretation of the infant's behavior and the formulation of appropriate recommendations constitute care skills taught in specific NIDCAP training.

In the NIDCAP model, specific estimation of each individual infant's current goal strivings is derived from the direct observation of each infant's behavior in the context of ongoing care delivery. The infant's behavior provides the guide for the caregiver to estimate the infant's current strengths and active efforts in catalyzing and structuring his or her own development. Direct observation of the infant's behavior with inference of the infant's own goals provides the basis from which to explore opportunities with the family and with professional caregivers to support the infant's goal strivings and differentiating competencies.

A systematic behavioral observation methodology, referred to as NIDCAP observation, as well as a formal evaluation, the APIB (Assessment of Preterm Infants' Behavior, Als et al., 1982), have been developed to be particularly geared to the understanding of the preterm and otherwise at-risk newborn's behavior. Both methodologies, NIDCAP observation and APIB, are based in the Synactive Theory of Development (Als, 1982) and are designed to specifically document the complexity and sensitivity of the preterm and the at-risk newborn infant by focusing on the interplay of the infant's autonomic, motoric, state organizational, and attentional functioning as the infant interacts with the caregiver and world around the infant.

The results of the systematic observations and formal evaluations provide the basis for the estimation of the infant's current goals, which in turn leads to the consideration of opportunities in support of the infant's development, such as:

1. The structuring of an appropriate physical environment in the NICU for infant and family
2. The timing and organization of medical and nursing interventions appropriate to the individuality of infant and family
3. The support and nurturance of the parents' cherishing of their infant, and of their confidence in caring for and taking pride in supporting their infant's development
4. The coordination in the developmental framework of the care delivered by special service providers such as respiratory therapists, occupational and physical therapists, social workers, nutritionists, early intervention professionals, public health nurses, and others.

The NIDCAP approach lends itself to system-based, process-oriented, attuned and responsive support of individualized developmental care for each infant and family. Results to date show that medical and developmental outcome for infants and competence of parents cared for in such a developmental framework are much improved (Als, 1986; Als et al., 1986; Als et al., 1987; Als et al., 1994; Becker et al., 1990; Becker et al., 1993; Parker et al., 1992; Fleisher et al., 1995; Buehler et al., 1995; Westrup et al., 2000; Kleberg et al., 2000; Kleberg et al., 2002; Als et al., 2003; Als et al., 2004). The APIB (Als, et al., 2005) provides an additional systematic, formal means for assessment of behavioral functioning of the preterm and otherwise at-risk newborn. In the hands of the professional with advanced background and training in child development and clinical infant psychology, the APIB becomes a diagnostic and prognostic tool, further supporting the caregiver in identifying specific opportunities and issues in complex situations and/or at clinical transition and decision points. Some nurseries aim ultimately to become a NIDCAP Training Center and develop two NFI certified NIDCAP Trainers within their system. NIDCAP Trainers are advanced level experienced Developmental specialists who aside from APIB certification achieve the certification components required for NIDCAP Trainers.

These are specified in NFI policy documents and are summarized below. The education, training and support for the developing NIDCAP Trainer is provided by a NIDCAP Master Trainer, who additionally has met all NFI required conditions to qualify for NIDCAP Master Trainer Certification; This includes among others the achievement of APIB Trainer certification. Again the specific requirements for NIDCAP Master Trainers and APIB Trainers respectively are spelled out in the respective NFI Policy documents, and are summarized briefly below. All approved NIDCAP Trainers in Training, certifies NIDCAP Trainers, APIB Trainers and NIDCAP Master Trainers are NFI members. NIDCAP certified professionals may apply for NFI membership with the specific endorsement of their NIDCAP Trainer and the approval by the NFI Board. NFI membership privileges and responsibilities are spelled out in more detail on the NFI website www.nidcap.org

Overview of Specific NIDCAP Training Components and Levels

Effective developmental care implementation on a nursery-wide basis is the goal of all education, training and consultation provided within the NIDCAP framework. Consultation and training is currently available from 20 NIDCAP training centers, nine in the United States of America, ten in Europe, and one in South America. Based on extensive experience, moving towards successful delivery of newborn intensive care in a developmental framework is typically a 5-year process. It involves:

- Training of at minimum two developmental care specialists
- Assuring salaried positions (2 FTE) for the developmental care specialists
- Training of a multidisciplinary leadership support team and institutional system support
- Training of a core group of nursing staff
- Development of a parent council
- Development of reflective process and continuing education opportunities

Initial training consists of training in environment and care assessment as well as in depth infant behavioral observation. This training is then integrated into developmental care planning and implementation based on the observations. (Basic NIDCAP Training or NIDCAP Level I). All training is embedded in consultation to the NICU regarding environment, developmental team building, developmental care implementation and family inclusion. In addition, formal training for the developmental care specialists includes training in neurobehavioral assessment (Assessment of Preterm Infants' Behavior, APIB), as well as consultation to the developmental specialists and the multi-disciplinary leadership support team in the facilitation of implementation of developmental care (Developmental Care Specialist Training or NIDCAP Level II). A document entitled, "Cost-Effectiveness Analysis of Developmental Care (NIDCAP) in the Newborn Intensive Care Unit," is available from the training centers, and spells out in more detail the process of implementation. Two full-time positions are typically required to effectively support a NICU of between 40 and 50 beds for consistent developmental care growth and sustained implementation.

Following is an overview of the specific training and consultation components involved.

NIDCAP Nursery Development includes NIDCAP education and training of professionals as well as consultation and guidance for implementation and integration of developmental care in to the nursery.

▪ **NIDCAP Education and Training of Professionals**

An important component in the care of the preterm and at-risk newborn infant in the NICU is developmental facilitation of the adaptation from intrauterine to extrauterine environment and the re-establishment of the developmental trajectory in co-regulation with the infant's family. Research is increasingly showing that the preterm newborn is highly reactive to the environment and profits from a developmental approach to the structuring of environment and care. The developmental approach is based on the observation of the environment, the care delivered, and the infant's behavioral communication of current capacities of self-regulation, strivings for the next developmental step, and current disorganization. The information is used to structure environment and care in such a way that the infant's self-regulatory capacity and developmental progression is supported and disorganization is diminished. The goal of the individualized approach to care is to enhance stabilization, modulation, and increasing differentiation of functioning for each infant, in order to provide opportunity for the best possible potentiation of each infant's unique developmental course in the context of the infant's family and the care setting.

Professionals appropriate for the role of Developmental Care Specialist and to guide Developmental Care Implementation in their Nurseries are advanced level professionals including neonatologists, nurses, respiratory therapists, social workers, physical, occupational, and speech and language therapists, nutritionists, psychologists, infant developmental therapists, educators, pediatricians, psychiatrists, neurologists, and other health care professionals with graduate degree preparation or the equivalent leadership experience, who become the professionals specifically responsible for guiding developmentally appropriate care implementation for all infants and their families in the NICU. Additionally those professionals who seek expansion of their developmental observation skills for the purpose of conducting research also may find NIDCAP training useful.

All NIDCAP consultation, education and all training sessions are conducted at the site of the hospital which seeks the training and wished to ultimately implement developmentally supportive care. It would represent a rare exception when training might be conducted at the Trainer's site. Education and specific training consist of the following steps:

1. Preparatory Reading (see Bibliography); Planning of the training and nursery development process
2. Site Assessment of the nursery seeking developmental care training; Self Assessment of the professionals seeking training
3. Specific Training
Specific Training consists of formal introductory training; independent observational studies; guidance; assessment of competency development; and reliability assessment for the establishment of certification.

a. Introductory Training

Two days of formal instruction for the key professionals designated by their site to lead the developmental care efforts are offered. These are followed by a day of feedback, planning, and site consultation.

Day 1- Didactic Introduction

(1) Lecture

An introductory lecture is given by the specific NIDCAP Trainer, explicating the theoretical background and empirical basis for developmental care. For the presentation the following materials are used: A PowerPoint presentation that covers the main topic areas of developmental care background, research and challenges; and selections from a commercially available DVD-series on the brain development of the preterm infant, implementation of developmental care in an NICU, as well as parental and family inclusion and perspectives on the role of the family in the NICU. The set of three DVDs is available from www.VIDA-Health.com. The introductory session lasts approximately 3.5 - 4 hours. The NIDCAP Trainer decides on the number of participants.

(2) Workshop

The introductory workshop involves discussion of the observation approach, including environment, path to the infant, and care, and the specifics of the observation methodology. Videotaped vignettes and written examples are used. The process of care implementation and change in the NICU is discussed, typically with the use of a PowerPoint presentation. The session typically lasts 3 hours and is restricted to Trainees and a few key leadership personnel. Some training centers combine the lecture and workshop into one full-day workshop session restricted to Trainees only. This is at the discretion of the Trainer.

Day 2 — Direct Observation Training (2 Trainees maximum)

(1) Direct Observation in the NICU

The path to the infant from hospital entrance to observation of a specific infant before, during, and after a caregiving intervention by the infant's caregiver, typically a nurse, follows, with guidance by the NIDCAP Trainer to see the environment and see and chart the behavior of the infant in interaction with the environment and a caregiver (1,5 – 2 hours).

(2) Write-up of the Observation and Assessment of Environment and Care

This involves discussion of the observation, observation write-up, study of infant's medical chart, specification of the infant's current goals, discussion of implications and recommendations for consideration in structuring environment and care for infant and family and in supporting the caregiving staff in the development of an individualized developmental care plan (4 to 5 hours). Discussion and scoring of the "Profile of the Nursery Environment and of Care Components", Template Manual, Part I (Als et al., 1990 1995 Rev 1997).

Day 3 – Feedback, Planning and Consultation

It is very important to set aside sufficient time on a separate day, typically the third day of the training week, in order to discuss with the Trainees, and in group session with the leadership team, the accomplishments of the training days, review progress on the time line and overall plan for the site's development, and map out the next steps with specific time frames and the necessity to free up the Trainees for their practice and independent study time. Realistic dates for the next formal on-site training session should be planned with consideration of holidays, other NICU and personal obligations etc in order to assure success.

(1) Discussion of Independent Observational Study

Discussion of the independent observational study, as outlined below and expected from the Trainees is an important opportunity and responsibility for the Trainer. Strategy development with the participants for their next steps, and for any additional supports that are deemed helpful, is indicated.

(2) Reflective Guidance, Timeline Development, and Evaluation with Trainees

Guidance to each of the two Trainees and exploration of their strengths and perceived difficulties in accomplishing the training goals, joint formulation of a timeline and planning for resource development are provided; an initially submitted Trainee self assessment provides the starting point for discussion. The session is jointly evaluated by Trainees and Trainer.

(3) Reflective Guidance, Timeline Development, and Evaluation with Site Leadership Team

Each training visit should end with a reflective and consultative session with the site's leadership team in order to share and stay aware of progress, difficulties encountered, timeline adjustments, and or additional opportunities perceived or realized. Such a session is at times difficult to schedule, given the full time tables of leadership staff. The more important is it to target the dates for the next visit's week realistically, in order to assure that the key members of the leadership team will be available.

b. Independent Observational Study

Independent observation study is accomplished by the Trainees in their respective NICUs and Fullterm Nurseries.

(1) Observation of a 24-hour course of three different preterm infants' is recommended in order to appreciate the 24-hour flow of events in the respective nursery as they impinge on the infant. These observations may be pieced together in 4- or 6-hour blocks:

- High Intensive Care
- Intermediate
- Close to Discharge

(2) Observation before, during, and after caregiving of at least five preterm infants at each of the following levels of care is recommended. Each observation is followed by the writing up of the developmental observation, the history, the infant's current goals, and care recommendations (Total: 15 observations):

- ICU
- Intermediate
- Predischarge

Note: All NIDCAP Professionals-in-Training, i.e. NIDCAP trainees, regardless of the level of care delivered by their home base nursery, must arrange for the observation of at least five infants in the intensive care (ICU) phase. For professionals, whose home base nursery is a Level-2 Nursery (Intermediate Care; Step-Down Unit; etc) this may require the setting up of a special relationship with a Level-3 Nursery (Newborn Intensive Care Unit - NICU) in their area. The optimal site would be the NICU from where the Level-2 Nursery receives the highest number of infants.

- (3) Observation before, during and after caregiving and write-up of the observation of at least five well fullterm infants is recommended (Total: 5 observations).
- (4) Observation, before, during, and after caregiving, of three infants under the Trainee's own care, when cared for by someone else; writing of developmental observations and recommendations, subsequent implementation of recommended caregiving modifications when the participant is providing the observed child's care; and re-observation of the success of the recommendations.
- (5) Preparation of a full write-up with history and documentation for submission to the Trainer for feedback. Once judged adequate, see f and g below. Typically training centers require the submission of more than one write-up for review of all Trainees. This is at the discretion of the training center. Once the write-up submitted with full documentation and self reflection is judged appropriate by the Trainer, the next step, namely one or more Work Days, preceding the Advanced Practicum, take place.

c. Work Days: Guidance and Assessment of Competence

Guidance and Assessment of Competence is accomplished again at the Trainees' nursery. For this purpose one or more work days or a work week is scheduled. The bedside workday(s) must again be followed by a separate day for feedback, planning and consultation to the individual Trainees as well as to the site.

Day 1 – Bedside Work Day(s) (Maximum 2 Trainees)

One or more workdays are scheduled. The Trainer and Trainee perform an observation together and discuss the write-up and recommendations. Some training centers require more than one workday of all Trainees before the Trainee is judged competent to embark on the Advanced Practicum. At maximum two Trainees may participate in a work day bedside observation and discussion.

Day 2 – Feedback, Discussion and Planning of Advanced Practicum

The Advanced Practicum (AP) presents the first opportunity for the Trainee to test his or her newly acquired skills in the clinical arena. An AP consists of approximately weekly observations of a very low birthweight infant from admission to discharge and transition to the home environment. Each observation is followed by a formal write-up. Furthermore, the Trainee offers daily support and guidance to the caregiving team and the family, based on the information gleaned from the observation. Since the AP focuses on the NICU from the infant and family's vantage point, it reveals the difficulties and inconsistencies in care implementation that are frequently part of NICU care. The AP may provide a catalyst for change in NICU structures and team work. Therefore it is critically important to plan each Advanced Practicum with great care, and assure that enough safeguards and supports are available and/or will be developed before the Trainee embarks on this key step. It is also important to build into the planning of the AP enough staff time in order to assure sufficient opportunities for meeting and reflection with the members of the care team and with the NICU leadership.

NIDCAP Professionals-in-Training, whose home base nursery is a Level-2 Nursery (Intermediate Care; Step-Down Unit; etc), should make every attempt to begin their Advanced Practicum in a Level-3 NICU (Intensive Care Nursery), optimally in the NICU from where the majority of infants are transferred. It is in the best interest of the NIDCAP trainee and of developmental care implementation to forge a strong relationship with such a Level-3 NICU, in order to assure continuity of care for all infants and families transferred to the community

Level-2 nursery. In cases, where this creates a difficult inter-institutional situation, which jeopardizes the trainee's learning experience, the trainee may select an in-born infant born at or before about 30 - 32 weeks, or an infant, who was transferred to the Level-2 nursery within about a week from birth. The decision and arrangements around the selection of infant and family for the Advanced Practicum always should be made in interaction with the NIDCAP Trainer, who holds responsibility for the trainee's quality of training and will have insight into the circumstances that pertain to specific trainee situations.

Note: All trainees must fulfill the Advanced Practicum requirement of a minimum of five observations, the last of which must be a home observation.

It is usually advisable that only one Trainee at a time embark on an AP in a NICU, and the other Trainee(s) support the consistency in care implementation for the family involved in the AP. The completed AP in the form of a bedside binder or Developmental Diary containing the formal write-ups as well as entries by the family and care team, photographs and other items that chronicle the infant's progress, becomes the property of the family. A copy of the materials together with the Trainee's reflective process documentation and the formal evaluations of the usefulness of the Trainee's support completed by the family and the key team members are submitted to the Trainer, who reviews and evaluates the Trainee's progress, and as deemed appropriate, schedules NIDCAP reliability assessment.

Day 3 – Feedback, Planning and Consultation

Depending on the complexity of the site and the number of Trainees involved, a third day for site preparation and leadership consultation and reflection is indicated, in order to prepare and support the next training and growth step supportively.

d. Reliability (2 Trainees maximum)

Reliability provides the culmination for an individual Trainee to demonstrate astuteness and thoughtfulness in observation and care planning as well as in systems resource management for the care of an individual infant and family. For a nursery this provides the beginning of true change since now there is a trained and knowledgeable professional, or two professionals, available to work as resource and guide for the staff and leadership and for the families.

Day 1 – Bedside Observation Day(s) (Maximum 2 Trainees)

The environment is observed by the Trainer and the Trainee from hospital entrance to the infant's bedside, followed by the observation of the infant before, during, and after a caregiving interaction. Trainer and Trainee make independent written observations, goal specifications, and recommendations for modification of care. Trainer and Trainee compare and discuss their respective observations and recommendations.

In preparation for the next day the Trainee is charged with the responsibility and opportunity to reflect on their journey from introduction to the NIDCAP process to the accomplishments of the reliability session. The Trainee is asked to develop a detailed assessment of their own competencies at this stage, of areas of further development and of supports and next steps that the Trainee is planning or hoping to plan for.

Day 2 – Evaluation, Feedback and Planning with Trainees

The Trainer invites the Trainee to reflect on the Trainee's own path to this stage in training and to assess their accomplishments and performance along the way and specifically in the course

of the reliability day. The Trainer gives feedback to the Trainee regarding the Trainer's assessment of the Trainee's work and judges the Trainee(s) written products in terms of

- Completeness of observation
- Astuteness of understanding
- Articulation of the infants' strengths, difficulties, and goals in view of the infant's history
- Articulation of the dynamic process of the infants' current developmental issues and steps in the co-regulatory context of the infants' family and the NICU setting
- Conceptual astuteness, pedagogic supportiveness, and effectiveness in formulation of the recommendations offered for consideration
- Accuracy of assessment of environment and care

Trainees may show progress towards reliability and be deemed in need of further practice in observation and articulation, in need of further development of conceptual understanding, or of maturity in generating creativity and growth in those their support addresses. Discussion of the Trainee's and Trainer's assessments is helpful in arriving at next steps. Suggestions are made by the instructor for the next steps, and time lines are discussed. Further work and/or reliability sessions are scheduled and/or other opportunities for growth and development outlined. Upon completion of the training, when the criteria outlined are satisfied, the participant is awarded a certificate. In the US, some states are also currently awarding CEUs for nurses upon completion of the introductory training, as well as upon completion of Reliability. Application for CEUs typically is the responsibility of the professionals seeking the training.

Day 3 – Feedback, Planning and Consultation to the Site

Discussion with the site and the key leadership constituencies, as to the Trainees' accomplishments, next steps, and plans for the further development and growth of resources and competencies for the site are discussed. It is important to celebrate the hard work that has been accomplished while simultaneously engage in the discussion of the dynamic guidance and mentoring nature of this work, which requires the full time presence of the well trained NIDCAP certified professional on site in the nursery, in order to promote and maintain growth and progress.

▪ **Consultation and Guidance of Developmental Care Implementation and Integration**

From the outset of planning for developmental care training, site leadership professionals are encouraged to develop a strategic 5-year plan for the comprehensive and systemic integration of developmental care. Financial and organizational planning for the development of opportunities towards nursery integration of developmental care as the overall framework and philosophy of care delivery is important. Individual professionals targeted for specific training, as well as their supervisors and directors, are therefore encouraged to review in their settings opportunities supportive of such change that may already exist or may be created and developed. The NIDCAP Trainer will furnish the organizer(s) of the training process at a site with the Site Self Assessment instrument which will provide the site with a starting point. Also included is support in the form of telephone and/or on-site consultation from the director or a senior Trainer of the NIDCAP Center, including assessment of organizational structures and the physical environment; assistance in strategizing and planning next steps of providing information to the setting, e.g., medical and/or nursing grand rounds, neonatology seminars, workshops, in-services, etc.; being available for group and individual meetings with key professionals; assisting in the identification of opportunities for further development of resources; and mapping out timelines appropriate for the

setting. Once the specific training process is begun, each formal NIDCAP education and training session with individual professionals is embedded in a planning and review session with those in the leadership and change-agent position at the respective settings. The allocation of telephone and correspondence communication time, as well as on-site meeting time for the organizational strategizing component is important. Following on-site training day and Consultation and Planning Meetings with the individual Trainees, at a minimum, a 2-hour meeting of the Trainer with the on-site organizers and key leadership professionals is an essential component in this process.

The site organizers are furthermore encouraged to define and think through in advance the roles targeted for those professionals and staff members participating in formal NIDCAP training. This is helpful for the Trainer and the participants in training in order to most cohesively map out and support the overall change process. Reflective process consultation a regular basis at minimum for the developmental leaders in a setting is essential. The development of key resource professionals, aside from the developmental specialist and developmental nurse educator, has proven effective. Six or seven advanced level professionals who represent the key disciplines in the NICU, e.g., neonatology, nursing, respiratory therapy, social work, physical and/or occupational therapy, case managers and neonatal nurse practitioners, and who are respected for their leadership skills, form the developmental resource, nurturance and advocacy team in the setting. This is important in order to integrate the developmental care framework as catalyst of the alliance of medical and nursing care and the dynamic process of infant and family development. An annual site self-assessment is indicated in identifying progress, continued challenges, and new opportunities.

A detailed overview, including budget projections, of the NIDCAP training process for nursery-wide implementation of developmental care is available from training centers.

- **NIDCAP Nursery Certification**

The NIDCAP Nursery Certification Program (NNCP) under the auspices of the NIDCAP Federation International (NFI) recognizes the excellence of a hospital nursery's commitment to and integration of the principles of the Newborn Individualized Developmental Care and Assessment Program (NIDCAP) for infants, families, and staff. Hospitals and their newborn intensive and special care nursery systems receive NIDCAP Nursery Certification when they demonstrate that they consistently promote best short and long term development of all infants and families in their care, and support their professionals and staff in accordance with the principle of assuring best personal and professional development towards relationship based care implementation. NFI certified NIDCAP Nurseries provide a dynamic environment for the full integration of expert medical and nursing care securely embedded within the active pursuit of mutual respect, caring, nurturance of and collaboration with infants and families, and among all professionals and staff members.

Nurseries eligible to apply to the NFI for certification, must be part of a hospital system that, if in the USA, is licensed and accredited by the Joint Commission on the Accreditation of Healthcare Organizations, or if outside of the USA, meets the respective country's accreditation standards. Furthermore, nurseries eligible for certification must provide care to preterm infants under 1500 grams and/or under 30 weeks gestation either from birth on (NICU, Level III Nursery) or in a convalescent mode (Level II Nursery; step-down nursery); and/or provide care for full-term or near full term infants who require intensive or specialized medical care to ensure their survival; and/or provide care for newborns cared for in a hospital setting for various reasons. Such nurseries must employ at least one full-time equivalent (FTE) NFI certified NIDCAP Professional in good standing for the purpose of promoting individualized developmental care. Hospitals with multiple nursery settings may apply for certification for only one or for more than one of their nursery

settings. Hospitals are encouraged to apply ultimately for certification for all the nurseries settings in their purview.

The NIDCAP Nursery Certification Criterion Scales (NNCCS) (Smith et al, 2011) are utilized to evaluate the quality of a nursery's developmental orientation and care implementation. They provide the conceptual framework for the nursery review process. The individual scales are organized into the following four categories that characterize a nursery:

1. Physical Environment of the Hospital and Nursery;
2. Philosophy and Implementation of Care: Infant;
3. Philosophy and Implementation of Care: Family; and
4. Philosophy and Implementation of Care: Professionals and Staff.

NIDCAP Nursery Certification is both a goal and a process. Nurseries that apply for this certification will, through the process of the application, and by their self-evaluation, define the areas of their current strengths and areas for future growth. Successful NIDCAP Nursery Certification represents distinction in the provision of a consistently high level of NIDCAP care for infants and their families, as well as for the staff, and as such, is to be commended and celebrated as an inspiration for all.

See the guide for more information (Smith et al., 2011).

▪ **Establishing a NIDCAP Training Center**

Once a center has developed the resources and advanced level leadership staff training necessary to provide developmental care, such a center may consider the establishment of a NIDCAP Training Center. The requirements for moving from a center delivering care in a developmental framework to a NIDCAP Training Center include the commitment to teach, guide, nurture, consult to, and advise professionals from and at other settings.

For this goal, it is necessary to identify and develop a core group of at least two advanced level clinicians, who will become NIDCAP Trainers and will provide such education, training, and consultation for others. The medical and nursing directors of the NICU must be in full support of and agreement not only with the goals of the NIDCAP approach, but also with the opening of the NICU to professionals from other institutions for the learning process. Demonstrating to Trainees from outside of one's own unit's practices requires special staff support for those who agree that their care be observed by outsiders, as well as special support towards the development of model environments and care delivery at the training site. Specific requirements for the prospective Trainer team members are as follows:

1. NIDCAP reliability
2. APIB reliability
3. Reliability in providing the didactic introduction
4. Reliability in providing direct observation training
5. Bringing independently to reliability at least two Trainees
6. Reliability in providing consultation and guidance to other sites and Trainees

The reliability of the prospective Trainers in providing these components is assessed by NFI certified NIDCAP Master Trainers. At this point NFI certified NIDCAP Master Trainers are H. Als, PhD, National NIDCAP Training Center, Boston, MA, USA; G. Basso, Centro Latinoamericano NIDCAP & APIB, Buenos Aires, Argentina; J. Browne, PhD, Colorado NIDCAP Center, Denver, CO, USA; D. Buehler, PhD, West Coast NIDCAP and APIB Training Center, San

Francisco, CA USA; A. Kleberg, PhD, Karolinska NIDCAP Center, Stockholm, Sweden; g. Lawhon, RN, PhD, Philadelphia, PA, USA; and K. VandenBerg, PhD, West Coast NIDCAP and APIB Training Center, San Francisco, CA, USA.

To facilitate the consistency in material to be covered in the theoretical preparation, a prospective Trainer and training center is provided by their master Trainer with a basic PowerPoint presentation at cost, which is to be supplemented by the respective center in development. All supplemental training materials must be reviewed and approved by the respective master Trainer and in case of uncertainty are to be reviewed and approved by the NFI Quality Assurance Committee.

Each training center is expected to develop a minimum of two Trainers, and is led by a center director, who takes ultimate responsibility for the appropriate organization, conduct, and ongoing quality control of training by that site, and for communication with the respective Master Trainer. The center director is typically supported by a NIDCAP Center medical director and a NIDCAP Center nursing director, specifically in agreement to serve the training program, who assure the appropriate interface of the training program with the management of the NICU itself and are available as indicated to nurse managers and medical directors from NICUs interested in or seeking training. Each NIDCAP center is expected to develop its own certificate in keeping with the NFI specifications and to be approved by the Chair of the NFI Quality Assurance Committee. The NFI President's signature must be included with the signatures of the site's director(s), and the leadership staff of the pertinent disciplines and or department chairpersons of the site's director(s). This serves to assure the official support of the program at the respective site. Examples of certificates are available from the NFI Main Office. The NIDCAP Training Center's director is typically an advanced degree professional, PhD or MD, with a full-time appointment at the respective institution. Participation in the annual NIDCAP Trainers meeting is expected of all Trainers-in-training, Trainers, center directors in development and center directors, in order to maintain up-to-date communications and to discuss developments. A register of Trainees is maintained by each NIDCAP center and entered regularly into the international Training Database, managed by J. Helm, PhD, Director of the Carolina NIDCAP Training Center, Raleigh, North Carolina, US. Trainer reliability is re-established typically on a biannual basis, or as deemed necessary by the respective Master Trainer. It is the responsibility of the training center to arrange for and finance the periodic training center reliability re-assessments, which include site assessment and consultation, and Trainer assessment and consultation. Aside from documentation of site and training self-assessment information, this involves a 3- to 4-day assessment and consultation process at the respective training center in order to be re-certified.

▪ **APIB — Behavioral Assessment Training**

The APIB is a comprehensive, systematic assessment of the preterm and fullterm newborn, and provides a valuable resource in support of developmental care provision by professionals and families. It is a neurodevelopmental diagnostic instrument for clinicians and developmental consultants in the nursery setting, such as psychologists, neonatologists, neurologists, psychiatrists, developmental pediatricians, and advance practice nurse clinicians. APIB training is a requirement for all those providing formal NIDCAP training. It is highly recommended for all developmental specialists and developmental nurse educators in charge of the facilitation of developmental care. It is furthermore necessary for those who wish to use the APIB as research instrument.

1. Preparation

The examination of preterm and otherwise at-risk newborns requires much skill and preparatory training. The following steps provide suggestions for the necessary background preparation for those who wish to achieve reliability in the APIB. The Trainee first establishes a good liaison and working relationship with the medical and nursing staff of the NICU or Special Care Nursery. Since it is important to also examine fullterm infants on a regular basis, a good working relationship with the fullterm newborn nurseries needs to be established as well. The following steps are recommended:

- a. Participation in daily rounds in the NICU with the medical and nursing staff, in order to gain familiarity with the medical care concerns, terminology, and decision making in this setting. Extensive reading of pertinent literature complements this experience. At least three months of such experience are helpful.
- b. Observation of normal and high-risk deliveries in order to appreciate the newborn period from the parent's and infant's perspective as well as from the perspective of the medical and nursing staffs. Familiarity with obstetric anesthesia procedures and pediatric procedures in the delivery room is indicated. Extensive reading accompanies this experience.
- c. Achievement of competence in the handling of preterm, at-risk, and healthy newborn infants and in the observation of their responses to manipulation. Under the supervision of a primary nurse, the Trainee participates in caregiving activities, such as holding, diapering, etc., in order to achieve confidence in the handling of infants and in observing infant responses while interacting with the infant.
- d. Observation of several infants in the course of complete 24-hour nursery days. This includes observation of state behavior, movement patterns, autonomic reactions, etc., focusing on the changes in these patterns in the course of various care routines and medical procedures. The prospective examiner observes each infant throughout at least one 24-hour cycle, which can be pieced together in 4-hourly blocks. It is important to be aware of the differences in infant behavior and nursery atmosphere during the often more quiet, past-midnight hours and during the typically more active hours of medical rounds or shift changes. Each nursery has its own rhythm and pattern, of which the Trainee-examiner needs to be aware. The observation of several infants provides awareness of the difference in infants' reactions and strategies in experiencing the nursery.
- e. NIDCAP Level I training is recommended at this juncture (see above for details).
- f. Experience with the administration of the maneuvers of the APIB is the next step. Expertise in the administration of reflex assessment, the response decrement, and interaction sequences needs to be acquired. Training in the Brazelton Neonatal Behavioral Assessment Scale (Brazelton, 1984) and the Prechtl Neurological Examination of the Newborn (Prechtl, 1977) are highly recommended. Supervision and input from a neurologist and neonatologist are also recommended. Practice of the sequence of maneuvers with healthy fullterm newborns is usually the first step until the flow of the examination is fully mastered.
- g. The next step is the assessment of a NICU infant who is judged to be stable and is near discharge. By then, the examiner has studied the manual and training guide carefully and is completely familiar with the sequencing of packages so as to provide the infant with a skilled examination. It is necessary to identify, with the nursing staff, an infant appropriate for examination and an appropriate examination time. The training purpose of performing the examination is discussed with the primary nurse. The nurse or experienced professional should be present during the initial examinations until the examiner feels confident in

judging the infant's color changes, respiratory patterns, etc., while handling the infant. This is also important in terms of suggestions such as warming up the examination room in advance, etc. Furthermore, it facilitates the examiner's role definition as assessor of behavior and defines the examiner's limits in respect to nursing and medical practice as appropriate. Five or six stable infants are examined this way. At least one of them is a healthy fullterm infant. After each examination, the examiner scores the exam, even if the examiner has only administered one package or a few items. The scoring process fosters astuteness in observation and in turn systematizes the administration of the examination.

2. Introduction Days

The next training step is formal Introduction to the APIB, which is accomplished in a two day session. APIB Introduction occurs at the Trainee's site so that the Trainer may consult to the Trainee regarding site expectations, set-up for examinations and other site-specific parameters, and interact with the Site's leadership in terms of support required for the Trainee and the Site's expectations regarding APIB use once reliability and certification are established. The introduction days usually last from about 9:00 A.M. to 6:00 P.M. Starting times of the days depend on the feeding schedules of the infants to be examined. On each of the two days the Trainer examines an infant while the Trainee observes. Complete scoring of the APIB is discussed, with opportunity for questions of scoring and administration issues that have arisen in the course of the Trainee's preparation. Maximally two Trainees may participate in the APIB introduction sessions.

3. Independent Self-Preparation and Practice; Work Session(s) with the Trainer

After the introduction days, the Trainees return to their own respective settings, examine at least 25 infants, and score each of the examinations. Five of these infants must be healthy fullterms. This preparation is typically a sufficient base for a two or three day Work Session with the Trainer. In the course of the APIB Work Session under the Trainer's supervision and guidance the Trainee examines an infant at least on one of the two work days. As indicated for best progress the Trainer may examine one of the infants in solidifying administration aspects for the Trainee. Should two Trainees participate in the Workday Session each of the Trainees typically assesses one of the infants. At times a three-day session is productive especially when a considerable amount of time such as a full year or more has elapsed between APIB Introduction and Work Days. In such cases the Trainer performs the first examination with explanations and the Trainer and Trainees discuss the scoring of the examination. On the second and third workday, Trainer and Trainee(s) score the examinations independently or together, depending on the Trainee(s)' confidence and level of preparation. They then discuss administration and scoring questions as they arise. Workdays typically are 8 – 9 hour days. The Trainees then return to the home nursery and now fine-tune scoring and/or administration further by examination of usually an additional 20 to 25 infants. The preparation necessary depends on the Trainee's background, experience and opportunity made time allocated to regularly scheduled APIB practice.

Set-up time for an examination with obtaining of staff and parent permission and offering of explanation as to the nature of the session, as well as room set-up, typically takes between 2 – 2.5 hours. An examination with a preterm infant typically lasts between 1 and 1 1/4 hours. Early on a novice Trainee requires between 3 and 4 hours for scoring. Feedback to the staff and the parents requires another 0.5 – 1 Hour. That means, the novice Trainee must set aside a minimum of 25 8-hour time blocks of undisturbed time in order to accomplish the preparatory training. The APIB Systems Sheet is the most demanding to score, since it requires the simultaneous attention to five or six subsystems of functioning at any one time in the examination. Once this is mastered, Score Sheets 2 and 3 are usually easier. The examiner may wish to concentrate initially on the Systems

Sheet and leave Score Sheets 2 and 3 for last. Then, in a second phase, the examiner may wish to start with Score Sheets 2 and 3 and leave the Systems Sheet until last. In a third phase, the examiner may go back to scoring the Systems Sheet first until both segments are equally familiar to the Trainee. During the self-training and preparation process it is recommended to examine and score only one infant per day. For the skilled examiner, scoring should take approximately 60 minutes, maximally 90 minutes.

A number of Trainees will require more than one APIB Work Session. The Trainer determines when an additional APIB Work Session is indicated before Reliability is likely successful.

4. Reliability Session

When the Trainee has accomplished full preparation, the two-day Reliability Session is set up. This usually requires the administration of at least one examination (Day 1) and the scoring of at least two examinations (Day 1 and Day 2) for a Trainee. The Trainee examines the infant, Trainee and Trainer score the examination independently, and then the Trainer discusses the administrative process and the scoring with the Trainee. For two Trainees a two-day reliability session is best set up as follows: Trainee A examines an infant on Day 1, Trainee B and Trainer observe. All three score. The Trainer gives feedback regarding Trainee A's administration of the examination, and discusses the scoring of both Trainees. Trainee A takes the lead in discussion and explanation of scores assigned. On Day 2, Trainee B examines an infant, Trainee A observes; both Trainees and the Trainer score. The Trainer gives feedback regarding Trainee B's administration and discusses the scoring of both Trainees, with Trainee B taking the lead in discussion and explanation of scores given. This gives each Trainee one chance for administration and two chances for scoring, maximizing Trainee and Trainer time. At some instances a three-day Reliability Session is set up, especially when the time lag between Work Days and Reliability Session is a year or longer. In the three-day Reliability Session the Trainer performs the infant examination on the first day and scoring maybe performed in joint discussion. For reliability, the successful independent administration of one and scoring of at least two examinations is necessary for each Trainee. When reliability is achieved, the APIB Professional Certificate is issued to the Trainee.

Training in clinical report writing on the basis of the APIB is not part of the formal training process provided in this framework and is negotiated on an individual basis. It requires an extensive internship with supervision by the Trainer and depends on the background of the examiner, as well as the purpose and focus of the assessment.

APIB training is set up on an individual basis. APIB Introduction, Work and Reliability Sessions must be conducted at the Trainee's Site. This maximizes consultation and support to the Trainee and the Site.

Each APIB training component, Introduction Session, Work Session(s), and Reliability Sessions must be followed by one-day schedule of Feedback, Reflective Processing, Planning, and Consultation Sessions, which must address all trainees and the site leadership. This day is planned in collaboration with the Trainees and the Site's Leadership.

In order to maintain reliability, it is advisable to send several sample examination score sheets to the Trainer at decided upon intervals. There are certain built-in checks in the score patterns, which may be used to monitor the ongoing accuracy of scoring. A videotape of an examination with accompanying score sheet may also be helpful. This permits a check on continuing administration and scoring accuracy. This type of long-distance check is set up individually with the Trainer. It requires much Trainer time. Direct recheck of reliability is necessary on a frequency schedule

determined by the Trainer, typically on an annual or biannual basis. It is critical to assess fullterm healthy newborns on a continued basis in conjunction with preterm or otherwise at-risk infants, be it for clinical work or in the framework of research. Otherwise, one's internal standards for the infant's modulation and differentiation of performance easily drift. Reliability requires confidence and expertise in examining and scoring infants of all gestational ages and a wide range of clinical conditions.

All NIDCAP Trainers must have achieved APIB Professional certification and must feel confident and have gained expertise in the clinical and as indicated research use of the APIB.

▪ **Becoming an APIB Trainer**

As a NIDCAP Trainer prepares to become a NIDCAP Master Trainer, a basic requirement is that the NIDCAP Trainer first or simultaneously becomes an APIB Trainer. For the initial generation of NIDCAP Master Trainers the NFI adopted the clause that APIB Trainer certification may be acquired after all other Master Trainer requirements have been accomplished, and or an otherwise qualifying NIDCAP Master Trainer may seek the partnership with an established APIB Trainer who makes the commitment to fulfill the NIDCAP Master Trainer's APIB Training requirements in a timely and responsible fashion.

Preparation:

(1) APIB Re-Reliability Certification (2.5 – 3.5 days):

A prospective APIB Trainer first reestablishes APIB reliability in a 2.5-3.5 day APIB session with the APIB Master Trainer (H. Als, PhD, National APIB Training Center, Boston MA USA).

(2) Observation of APIB Trainer in Conducting Training Process (Three 3.5-Day Sessions)

Once APIB reliability is re-certified, the APIB Trainer-in-Training observes the APIB Master Trainer's introductory APIB Training Sessions, APIB Work Days, and APIB Reliability Sessions as spelled out above under APIB Training, and debriefs with the APIB Master Trainer after each of these 3 day sessions. A three hour time block is typically sufficient per 3-day session for debriefing.

(3) APIB Training of Two New APIB Trainees

The APIB Trainer-in-Training introduces two new APIB Trainees to the APIB (3-day session). This is followed by a 3 – 4 hour review and guidance session with the APIB Master Trainer who observed the APIB Trainer-in-Training's APIB Introductory Days. Subsequently the APIB Trainer-in-Training schedules the two APIB Trainees for their Workdays (3-day session). This is again followed by a 3 – 4 hour review and guidance session with the observing APIB Master Trainer. Once the APIB Trainer-in-Training schedules the two APIB Trainees for their Reliability days (3-day session), the APIB Master Trainer attends and observes and subsequently debriefs and gives feedback and guidance to the APIB Trainer-in-Training. The APIB Trainer-in-Training's two APIB Trainees remain the ultimate responsibility of the APIB Master Trainer; thus, depending of the amount of input and guidance the APIB Master Trainer gave during the APIB training process of the Trainees, the APIB Trainer-in-Training may be required to bring two additional Trainees to APIB reliability, now with little to no direct guidance during the sessions for the Trainees. It is at the discretion of the APIB Master Trainer to judge and assure the independent APIB Trainer competence of the APIB Trainer-in-Training.

The APIB Trainer process thus requires at minimum 21 days of APIB Master Trainer Time, in work with and/or consultation to the APIB Trainer-in-Training.

▪ **Becoming a NIDCAP Master Trainer**

Once a NIDCAP Trainer is also an accomplished APIB Trainer and independently has developed at minimum two level-3 NICUs with their respective NIDCAP certified professionals and the site guidance involved, and has furthermore trained at minimum two APIB professionals to reliability, who ideally are the leadership NIDCAP professionals in one of the sites that the NIDCAP Trainer has independently developed, then the NIDCAP Trainer qualifies for application to become a certified NIDCAP Master Trainer.

The requirements include developing at least one NIDCAP Training Center successfully from initial NIDCAP certification through NIDCAP Trainer certification of at minimum two developmental care specialists, who apply officially to achieve NIDCAP Trainer certification and whose center applies officially to be certified as NIDCAP Training Center (see above). The NFI must review and approve a NIDCAP Trainer's application to become a certified NIDCAP Master Trainer. The NIDCAP Master Trainer applicant must identify the NIDCAP professionals and the nursery that he or she seeks to bring to NIDCAP Training Center and NIDCAP Trainer status. The respective center and NIDCAP professionals must apply and be approved by the NFI to be admitted to training and establishment of a NIDCAP Training Center respectively. The Master Trainer applicant must secure the availability and commitment of a Senior NIDCAP Master Trainer to guide the Master Trainer-in-Training in the process to become a certified NIDCAP Master Trainer. The Senior NIDCAP Master Trainer, currently there is only one such Trainer H. Als, PhD, National NIDCAP Training Center Boston, MA, USA, observes and guides the NIDCAP Trainer along the process of training two NIDCAP Trainers and a NIDCAP Center to certification. This requires typically three one-week sessions when the Senior Master Trainer is on-site for observation and guidance to the Master Trainer-in-Training, who trains the NIDCAP Trainers-in-Training in the Introduction Training, Workdays, and Reliability Days with their respective Trainees.

The cost for the training by a Master or Senior Master Trainer of APIB Trainers, NIDCAP Trainers and NIDCAP Master Trainers respectively is the responsibility of the person seeking the level of training which requires the Master and/or Senior Master Trainer's supervision. The quality of training for the NIDCAP and APIB Trainees involved is the responsibility of the Master Trainer and or Senior Master Trainer respectively, who therefore may be required to co-train, amplify and supplement the training of the Trainer and/or Master Trainer in Training.

Centers with Master Trainers continue to be referred to as NIDCAP and/or APIB Training Centers respectively.

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Further Training Documents Available

1. Cost-Effectiveness Analysis of Developmental Care (NIDCAP) in the Newborn Intensive Care Unit
2. Nursery Wide Developmental Care Implementation in Newborn Intensive Care Units (NICU)– Recommendations for Training, Education, Staff and Resource Development
3. Outline of NIDCAP Training Process: Joint Guide for Trainers and Site Organizers
4. Guidelines and Suggestions for NIDCAP Trainees, NIDCAP Professionals, NIDCAP Trainers-in-Training, NIDCAP Trainers and Master Trainers, as well as Center Directors
5. Developmental Care Guidelines for Use in the Newborn Intensive Care Unit (NICU)
6. Fee Structure for Training Center

NIDCAP Training Center Directory***1. National NIDCAP Training Center, Boston, *Established 1982***

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* For specific NIDCAP training and fee information, please contact the respective center.

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Sooner NIDCAP Training Center — continued

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School of Medicine, Division Neonatology

Training Center Nursing Director

Kim Johnson RN, BSN

Patient Care Manager
Neonatal Intensive Care Nursery
UCSF Benioff Children's Hospital

NICU Leadership

David Rowitch, MD, PhD

Professor of Pediatrics & Neurological Surgery
University of California San Francisco
School of Medicine, Division of Neonatology
Chief of Neonatology, UCSF Benioff Children's Hospital

Sue Pelloquin, RN, PNP

Coordinator, Neuro-Intensive Care Nursery
UCSF Benioff Children's Hospital

West Coast NIDCAP & APIB Training Center — continued**NIDCAP Master Trainers****Kathleen A. Vandenberg, PhD**

Director, West Coast NIDCAP & APIB Training Center
University of California San Francisco
Academic Administrator
School of Medicine, Division of Neonatology

Deborah Buehler, PhD

Developmental Psychologist
Associate Director, West Coast NIDCAP & APIB
Training Center
University of California San Francisco
School of Medicine, Division of Neonatology

gretchen Lawhon, PhD, RN, CBC, FAAN

Clinical Nurse Scientist
President, NIDCAP Federation International, Inc.
University of California San Francisco
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4. **Carolina NIDCAP Training Center, Established 1989**
WakeMed, Raleigh, North Carolina

Training Center Director

James M. Helm, PhD
Infant-Family Specialist
WakeMed

Training Center Medical Director

Ross L. Vaughan, MD
Professor of Pediatrics
U. of North Carolina at Chapel Hill, School of Medicine
WakeMed Physician Practices - Neonatology
WakeMed

Susan Gutierrez, BSN, RNC-NIC
Nurse Manager, Neonatal Intensive Care Unit and
Mothers' Milk Bank
WakeMed

NIDCAP Trainers

James M. Helm, PhD
Infant-Family Specialist
WakeMed

Melissa R. Johnson, PhD
Adjunct Associate Professor of Psychiatry

U. of North Carolina at Chapel Hill, School of Medicine
Pediatric Psychologist
WakeMed

Contact

James M. Helm, PhD
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5. **Colorado NIDCAP Center, Established 1989**

University of Colorado School of Medicine, Anschutz Medical Campus, Department of Pediatrics and Children's Hospital Colorado Newborn Intensive Care Unit, Aurora, Colorado

Training Center Director

Joy V. Browne, PhD, PCNS-BC, IMH (IV) Clinical Mentor
Developmental/Infant-Parent Psychologist
Clinical Professor of Pediatrics and Psychiatry
Director, Center for Family and Infant Interaction
JFK Partners University of Colorado Anschutz Medical Campus
Department of Pediatrics

Training Center Medical Director

Theresa Grover, MD
Associate Professor of Pediatrics,
University of Colorado School of Medicine
Medical Director, NICU
Children's Hospital Colorado, Aurora, Colorado

Neonatal Intensive Care Unit and Lactation Clinical Manager

Lisbeth Gabrielski, RN, MSN, IBCLC

Therapy Consultants

Katheryn Boada, MA, CCC-SLP
Director, Audiology, Speech Pathology and Learning Services
Children's Hospital Colorado, Aurora, Colorado

Debra Paul, OTR

Program Manager, Department of Occupational Therapy and Rehabilitation Medicine
Children's Hospital Colorado, Aurora, Colorado

Nursing Clinical Coordinators of NICU

Susan Arato, RNC, BSN
Patricia Boldt, RN, BSN
Erin Carey, RNC, BSN
Karen Jones, RNC, MS
Michelle Mueller, RN, BSN
Manoj Sebastian, RNC, MS

Nursing Clinical Resources of NICU

Betsy Smith, RN, BSN
Sonya Wyman, RN, BSN
Joanna Buchanan, RN, BSN
Susie Taylor, RN, BSN
Ann Willis, RN, BSN
Nicole Larez, RN, BSN
Joleen Farina, RN, BSN
Liz Del Priore, RN, BSN
Morganne Mikesell, RN, BSN

Clinical Coordinator of Department Education

Carrie Rafferty, RN, ND, MS

Colorado NIDCAP Center — continued

Neonatal Educator	Sheila Kaseman, RN, MS
NIDCAP Master Trainer	Joy V. Browne, PhD, PCNS-BC, IMH (IV) Clinical Mentor Developmental/Infant-Parent Psychologist Associate Professor of Pediatrics and Psychiatry University of Colorado School of Medicine
Parent Advisors	Suzane Heasley, BS Debra Paul, BS, OTR
Program Advisor	Cordelia Robinson, PhD, RN Director, JFK Partners Professor of Pediatrics and Psychiatry University of Colorado Anschutz Medical Campus
Clinical Psychology and Reflective Practice Advisor	Ayelet Talmi, PhD Associate Director, Irving Harris Program in Child Development & Infant Mental Health Associate Professor of Psychiatry and Pediatrics University of Colorado Anschutz Medical Campus
Neonatal and Bioethics Advisor	Heather Fitzgerald, MS, RN Clinical Nurse Ethicist Co-chair, Ethics Committee Children's Hospital Colorado, Aurora, Colorado
Contacts	Andrea (Andi) McKenzie, BA Program Coordinator Center for Family and Infant Interaction University of Colorado Anschutz Medical Campus 13121 E 17 th Ave., C234 Aurora, CO 80045 L28 Room Number 5219 Voice: 303-724-7689 Fax: 303-724-7664 Email: andrea.mckenzie@ucdenver.edu
	Joy V. Browne, PhD, PCNS-BC, IMH (IV) Mentor Colorado NIDCAP Center Anschutz Medical Campus University of Colorado Denver and Children's Hospital Colorado Aurora, CO 80045 Voice: 303-724-7668 Fax: 303-724-7664 Email: joy.browne@childrenscolorado.org

6. St. Luke's NIDCAP Center, *Established 1995*
St. Luke's Children's Hospital, Boise, Idaho

Training Center Co-Directors	Beverly Holland MSN, RN, NE-BC St. Luke's Children's Hospital Karen M. Smith, RNC, BSN, MEd St. Luke's Children's Hospital
Training Center Medical Director	Scott A. Snyder, MD Medical Director Newborn Intensive Care Unit St. Luke's Children's Hospital
Training Center Nursing Director	Kim Froehlich, BSN, RN Nursing Director Newborn Intensive Care Unit St. Luke's Children's Hospital
NIDCAP Trainer	Karen M. Smith, RNC, BSN, MEd St. Luke's Children's Hospital
Psychology Consultant	Christine Pickford, PhD St. Luke's Children's Hospital
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7. **Karolinska NIDCAP Training Center, Stockholm, Sweden, *Established 1999***
Astrid Lindgren Children's Hospital at Karolinska University Hospital, Stockholm

Training Center Director	Björn Westrup, MD, PhD Senior Consultant in Neonatology Karolinska Institute, Astrid Lindgren Children's Hospital at Karolinska University Hospital-Danderyd, Stockholm
Training Center Co-Director	Lena Westas, MD, PhD Professor of Perinatal Medicine Department of Women's and Children's Health Uppsala University Hospital
Training Center Medical Director	Hugo Lagercrantz, MD, PhD Professor of Pediatrics Karolinska Institute Astrid Lindgren Children's Hospital at Karolinska University Hospital, Stockholm
NIDCAP Master Trainer	Agneta Kleberg, RN, PhD NIDCAP Master Trainer Astrid Lindgren Children's Hospital at Karolinska University Hospital-Danderyd, Stockholm
NIDCAP Trainer	Ann-Sofie Ingman, RN, BSN Astrid Lindgren Children's Hospital at Karolinska University Hospital, Solna, Stockholm
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8. French NIDCAP Center, Brest, France, Established 2004

Faculté de Médecine et des Sciences de la Santé, Université de Bretagne Occidentale & University Hospital, Brest, France

Training Center Director**Jacques Sizun, MD**

Professor of Pediatrics
Woman, Mother and Child Department Medical Director
University Hospital, Brest, France

Training Center Co- Director**Nathalie Ratynski, MD**

Neonatalogist
Woman, Mother and Child Department
University Hospital, Brest, France

NICU Leadership**Loïc de Parscau, MD**

Professor of Pediatrics
Woman, Mother and Child Department
University Hospital, Brest, France

Armelle Garenne, MD

Neonatalogist
Neonatal Intensive Care Unit

Gisèle Gremmo-Feger, MD, IBCLC

Neonatalogist
Breast-feeding consultant
Department of Obstetrics

NIDCAP Trainers**Nathalie Ratynski, MD**

Woman, Mother and Child Department
University Hospital, Brest, France

Sylvie Minguy, RN

Woman, Mother and Child Department
University Hospital, Brest, France

Contact**Nathalie Ratynski, MD**

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9. SOPHIA NIDCAP Training Center, Rotterdam, The Netherlands, *Established 2004*

Erasmus MC-Sophia Children's Hospital, Rotterdam, The Netherlands.

Training Center Director	Nikk Conneman, MD Consultant in Neonatology Erasmus MC-Sophia Children's Hospital Rotterdam
Training Center Co-Director	Monique Oude Reimer, RN NIDCAP Consultant Erasmus MC-Sophia Children's Hospital Rotterdam
Training Center Medical Director	Irwin Reiss, MD, PhD Professor of Neonatology Head, Division of Neonatology Erasmus MC-Sophia Children's Hospital Rotterdam
Training Center Nursing Director	Yvonne Kant, RN Sector Manager, Mother and Child Health Erasmus MC-Sophia Children's Hospital Rotterdam
NICU Leadership	Irwin Reiss, MD, PhD Professor of Neonatology Head, Division of Neonatology Erasmus MC-Sophia Children's Hospital Rotterdam
Senior NIDCAP Trainer	Nikk Conneman, MD Consultant in Neonatology Director Erasmus NIDCAP Center, Rotterdam, Erasmus MC-Sophia Children's Hospital Rotterdam
Developmental Care Educator NIDCAP Trainer-in-Training	Monique Oude Reimer, RN NIDCAP Consultant Erasmus MC-Sophia Children's Hospital Rotterdam
Developmental Care Educator	Esther van der Heijden NIDCAP Consultant Erasmus MC-Sophia Children's Hospital Rotterdam
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10. **Centro Latinoamericano NIDCAP & APIB, Established 2005**
Hospital Fernández, Fundación Alumbrar, Buenos Aires, Argentina

Training Center Director	Graciela Basso, MD, PhD Neonatologist Infant Psychoanalyst IPA Hospital Fernández Vice-President of Fundación Alumbrar
Training Center Medical Director	Liliana Voto MD, PhD Professor of Obstetrics Universidad de Buenos Aires Mother and Child Center Director Hospital Fernández
NIDCAP Master Trainer & APIB Trainer	Graciela Basso, MD, PhD Neonatologist Infant Psychoanalyst IPA
NIDCAP Professionals	Maria Luisa de Anchorena Psychologist Maricel Mimiza Physical Therapist NDT Laura Menendez Psychologist
NICU Leadership	Jorge Tavošnaska, MD Professor of Pediatrics Universidad de Buenos Aires Director, Newborn Medicine Hospital Fernandez Liliana Roldan, MD Neonatologist Hospital Fernández
Training Center Nursing Director	Leonarda Sulca Nurse Manager, Intensive Care Unit Hospital Fernández
Follow Up	Teresa Sepulveda, MD Pediatrician Ana Pattín Speech Therapist Fernanda Buraschi Pediatrician

Centro Latinoamericano NIDCAP & APIB – continued**Neurodevelopmental Care Team****Brenda Grosskopff**
Pediatrician**Laura Goldberg**
Psychiatrist**Parent Representatives****Marcela Cheloni**
Ariel Acri**Contact****Cecilia Pedernera**
Catalina Pereira
NIDCAP Assistants
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Website: www.fundacionalumbrar.org
www.fmm.edu.ar

11. **Children's Hospital of University of Illinois (CHUI) NIDCAP Training Center**, *Established 2006*
Women's and Children's Nursing Services, Children's Hospital of University of Illinois

Training Center Director

Beena Peters, RN, MS
Associate Director of Nursing,
Women's and Children's Services
Children's Hospital of University of Illinois

Training Center Medical Director

Akhil Maheshwari, MD
Chief, Division of Neonatology
Associate Professor of Pediatrics and Pharmacology
Children's Hospital of University of Illinois

**Director of Developmental Care
Education**

Jennifer Hofherr, OTR/L
Developmental Specialist
Newborn Intensive Care Unit
Children's Hospital of University of Illinois

**Director of Developmental Care
Training**

Jean Powlesland, RN, MS
Developmental Specialist
Newborn Intensive Care Unit
Children's Hospital of University of Illinois

NICU Leadership

Shirley Belocura, RN, BSN
Interim Nurse Manager, Newborn Intensive Care
and Intermediate Care Nurseries
Children's Hospital of University of Illinois

NIDCAP Trainers

Jennifer Hofherr, OTR/L
Developmental Specialist
Newborn Intensive Care Unit
Children's Hospital of University of Illinois

Jean Powlesland, RN, MS
Developmental Specialist
Newborn Intensive Care Unit
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12. NIDCAP Training & Research Center at Cincinnati Children's, *Established 2007*
Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio

Training Center Director	Whittney Brady, MSN, RN Clinical Nursing Co-Director Newborn Intensive Care Unit Cincinnati Children's Hospital Medical Center
Training Center Medical Director	Stephanie Merhar, MD, MS Assistant Professor of Neonatology Cincinnati Children's Hospital Medical Center
Training Center Business Director	Sondra Ouzts, CPA NICU Business Director Newborn Intensive Care Unit Cincinnati Children's Hospital Medical Center
NICU Leadership	Vicky DeCastro, MSN, MBA Clinical Nursing Co-Director Newborn Intensive Care Unit Cincinnati Children's Hospital Medical Center
	Tammy Casper, DNP, MEd Quality Outcomes Manager James M. Anderson Center for Health Systems Excellence Cincinnati Children's Hospital Medical Center
NIDCAP Trainer	Linda Lacina, MSN, RN Education Specialist II Infant Developmental Specialist Newborn Intensive Care Unit Cincinnati Children's Hospital Medical Center
Contacts	Linda Lacina, MSN, RN Newborn Intensive Care Unit Cincinnati Children's Hospital Medical Center 3333 Burnet Avenue Cincinnati, Ohio 45229 Phone: 513-636-7434 Email: Linda.Lacina@cchmc.org

13. The Brussels NIDCAP Training Center, Belgium, *Established in 2007*

Department of Neonatology, Saint-Pierre University Hospital, Free University of Brussels, Belgium

Training Center Director	Dominique Haumont, MD Professor of Pediatrics Head Department of Neonatology Saint-Pierre University Hospital, Brussels
Training Center Co-Director	Ann Marchand, RN Saint-Pierre University Hospital
Training Center Medical Director	Dominique Haumont, MD Head Department of Neonatology Saint-Pierre University Hospital
Training Center Nursing Director	Carine Lambeau, RN Nurse Manager Saint-Pierre University Hospital
NICU Leadership	Dominique Haumont, MD Head Department of Neonatology Saint-Pierre University Hospital Christiane Raspé, RN Nurse Manager, Department of Neonatology Saint-Pierre University Hospital Inge Van Herreweghe, MD Associate Professor of Pediatrics Department of Neonatology Saint-Pierre University Hospital
NIDCAP Trainer	Delphine Druart, RN Department of Neonatology Saint-Pierre University Hospital
Developmental Specialists	Anne Vanvaerenbergh, PT Ann Marchand, RN
Developmental Clinical Psychologists	Emmanuelle Lempereur Annabel Piron Gwenaëlle Mentens
Lactation Program Coordinator	Esnault Marie, RN
Parent Advisor	Laure Dorchy
Contact	Delphine Druart, RN Brussels NIDCAP Training Center Department of Neonatology Saint-Pierre University Hospital Rue Haute, 322 B 1000 Brussels, Belgium Voice: +32 2 5354226 Fax: +32 5354563 Email: delphine_druart@stpierre-bru.be

14. NIDCAP Norway, Aalesund Training Center, Norway, *Established in 2011*

Department of Neonatology, Aalesund Hospital, Helse More og Romsdal HF, Aalesund, Norway

Training Center Director**Lutz Nietsch, MD**

Neonatologist
Department Head of Neonatology
Aalesund Hospital

Training Center Medical Director**Ove Økland, MD**

Department Head of
Children and Youth' Department
Aalesund Hospital

Lutz Nietsch, MD

Neonatologist
Department Head of Neonatology
Aalesund Hospital

NICU Leadership**Lutz Nietsch, MD**

Department Head of Neonatology
Aalesund Hospital

Karin Sørland, RN

Nurse Manager
Department of Neonatology,
Aalesund Hospital

NIDCAP Trainers**Liv Ellen Helseth, RN****Unni Tomren, RN**

Department of Neonatology,
Aalesund Hospital

Contact**Liv Ellen Helseth, RN****Unni Tomren, RN**

NIDCAP Norway, Aalesund Training Center
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15. The Barcelona-Vall d'Hebron NIDCAP Training Center, Spain, Established in 2011

Department of Neonatology, Hospital Universitari Vall d'Hebron, Barcelona, Spain

Training Center Director	Josep Perapoch, MD, PhD Department of Neonatology Hospital Universitari Vall d'Hebron
Training Center Medical Director	Eudald Ballesta, MD Head Department of Obstetrics and Pediatrics Hospital Universitari Vall d'Hebron
Training Center Nursing Director	Rosa Martínez, RN Nurse Manager of Obstetrics and Pediatrics Hospital Universitari Vall d'Hebron
NICU Leadership	Félix Castillo, MD, PhD Associated professor of Pediatrics Head Department of Neonatology Hospital Universitari Vall d'Hebron
	Pilar Gutierrez, RN NICU Nurse Manager Department of Neonatology Hospital Universitari Vall d'Hebron
	Félix Castillo, MD, PhD Associated professor of Pediatrics Department of Neonatology Hospital Universitari Vall d'Hebron
	Cèsar Ruiz, MD, PhD Department of Neonatology Hospital Universitari Vall d'Hebron
NIDCAP Trainer	Josep Perapoch, MD, PhD Hospital Universitari Vall d'Hebron
NIDCAP Trainers-in-Training	Fátima Camba, MD Estrella Gargallo, RN Hospital Universitari Vall d'Hebron
NIDCAP Nurses	M^a José Cano, RN Estrella Gargallo, RN Hospital Universitari Vall d'Hebron
Developmental Specialists and Follow Up	Alfons Macaya, MD, PhD Neurologist M^a Concepción Céspedes, MD Neonatologist Hospital Universitari Vall d'Hebron

The Barcelona-Vall d’Hebron NIDCAP Training Center – continued

Research

Vall d’Hebron Research Institute

Verónica Violant, PhD

Professor of [Teaching and Learning and Educational Organization](#)

Faculty of Education

University of Barcelona

Contact

Josep Perapoch, MD, PhD

Barcelona-Vall d’Hebron NIDCAP Training Center

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16. Hospital Universitario 12 de Octubre NIDCAP Training Center, Spain, *Established in 2011*

Department of Neonatology, Hospital Universitario 12 de Octubre, Madrid, Spain

Training Center Director	Carmen Martínez de Pancorbo, MD General Manager of the Hospital Universitario 12 de Octubre, Madrid
Training Center Medical Director	Carmen Pallás, MD Head Department of Neonatology Hospital Universitario 12 de Octubre, Madrid
Training Center Nursing Director	Esther Cabañes Nurse Manager Hospital Universitario 12 de Octubre, Madrid
NICU Leadership	Carmen Pallás, MD Head Department of Neonatology Hospital Universitario 12 de Octubre, Madrid Juliana Acuña, RN Trainer in Training Department of Neonatology Hospital Universitario 12 de Octubre, Madrid Lidia Garcia, RN Nurse Manager Department of Neonatology Hospital Universitario 12 de Octubre, Madrid
NIDCAP Trainer	María López Maestro, MD Department of Neonatology Hospital Universitario 12 de Octubre, Madrid
Developmental Clinical Psychologist	Purificación Sierra, PT Professor Uned University
Lactation Program Coordinator	Concepción de Alba, MD Department of Neonatology Hospital Universitario 12 de Octubre, Madrid
Parent Advisors	Laura Cabrejas, RN Esther Herrador, RN Department of Neonatology Hospital Universitario 12 de Octubre, Madrid
Research Management and Financial Support	Instituto de Investigación Hospital 12 de Octubre. Fundación Biomédica Hospital 12 de Octubre

Hospital Universitario 12 de Octubre NIDCAP Training Center – continued**NIDCAP Professionals**

Juliana Acuña, RN
Ana Palacios, RN
Laura Cabrejas, RN
Esther Herrador, RN
M^a Eugenia Bodas, RN
Rosa Ballesteros, RN
Esther Cabañes, RN
Lidia García San José, RN
Ana M^a Olmos, RN
Carmen Barrio, MD
María López Maestro, MD
Concepción de Alba, MD
M^a Teresa Moral, MD
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17. St. Joseph's NIDCAP Training Center, *Established in 2012*

St. Joseph's Hospital and Medical Center, Phoenix, Arizona

Training Center Co-Directors**Marla Wood, BSN, MEd**

Coordinator, Developmental Intervention Project
NIDCAP Trainer, Nursery Intensive Care Unit
St. Joseph's Hospital and Medical Center

Bonni Moyer, MSPT

Coordinator, Developmental Intervention Project
NIDCAP Trainer, Nursery Intensive Care Unit
St. Joseph's Hospital and Medical Center

Training Center Medical Director**Robert Gutierrez, MD**

Medical Director, Nursery Intensive Care Unit
St. Joseph's Hospital and Medical Center

Training Center Nursing Director**Andrea Sharfner, BSN, MSN**

Nurse Manager, Nursery Intensive Care Unit
St. Joseph's Hospital and Medical Center

NICU Leadership**Sharon Glanville, MN, RN, NEA-BC**

Executive Director
Women's and Children's Services
St. Joseph's Hospital and Medical Center

NIDCAP Trainers**Bonni Moyer, MSPT****Marla Wood, BSN, MEd**

Nursery Intensive Care Unit
St. Joseph's Hospital and Medical Center

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18. Italian Modena NIDCAP Training Center, Italy, Established in 2013

Department of NICU and Neonatology, Modena University Hospital, Modena, Italy

Training Center Director**Fabrizio Ferrari, MD**

Professor in Pediatrics and Neonatologist
Head of Department of NICU and Neonatology
Modena University Hospital

Training Center Medical Director**Fabrizio Ferrari, MD**

Professor in Pediatrics and Neonatologist
Head of Department of NICU and Neonatology
Modena University Hospital

Training Center Nursing Director**Giovanna Cuomo, RN**

Nurse Manager
Department of NICU and Neonatology
Modena University Hospital

NICU Leadership**Fabrizio Ferrari, MD**

Professor in Pediatrics and Neonatologist
Head of Department of NICU and Neonatology
Modena University Hospital

Giovanna Cuomo, RN

Nurse Manager
Department of NICU and Neonatology
Modena University Hospital

NIDCAP Trainer**Natascia Bertoncelli PT**

Physiotherapist
Department of NICU and Neonatology
Modena University Hospital

Developmental Specialists**Natascia Bertoncelli**

Physiotherapist
Department of NICU and Neonatology
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19. Danish NIDCAP Training and Research Center, Denmark, *Established in 2015*

Aarhus University Hospital, Aarhus, Denmark

Training Center Director	Hanne Aagaard, RN, MSCN, PhD Clinical Nurse Specialist & Senior researcher Newborn and Neonatal Intensive Care Unit Aarhus University Hospital
Training Center Co-Director	Eva Jörgensen, RN NIDCAP Trainer & Nurse Specialist Newborn and Neonatal Intensive Care Unit Aarhus University Hospital
Training Center Medical Director	Hanne Busk Andersen, MD, PhD (APIB -Trainee) Medical specialist in Pediatrics and Neonatologist Newborn and Neonatal Intensive Care Unit Aarhus University Hospital
Training Center Nursing Director	To be determined
NICU Leadership	Bente Höst, MD, Consultant Medical specialist in Pediatrics and Neonatologist Head of Newborn and Neonatal Intensive Care Unit Aarhus University Hospital
NIDCAP Trainer	Eva Jörgensen, RN NIDCAP Trainer & Nurse Specialist Newborn and Neonatal Intensive Care Unit Aarhus University Hospital
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20. São João NIDCAP Training Center, Portugal, *Established in 2015*

Department of Neonatology, Pediatric Hospital at São João Hospital, Porto, Portugal

Training Center Director	Hercília Guimarães, MD, PhD Professor of Pediatrics Faculty of Medicine, Porto University Head Department of Neonatology Pediatric Hospital at São João Hospital
Training Center Co-Director	Fátima Clemente, MD Consultant of Neonatology Pediatric Hospital at São João Hospital
Training Center Medical Director	Hercília Guimarães, MD, PhD Professor of Pediatrics Faculty of Medicine, Porto University Head Department of Neonatology Pediatric Hospital at São João Hospital
Training Center Nursing Director	Madalena Ramos, RN, Msc Nurse Director Pediatric Hospital at São João Hospital
NICU Leadership	Hercília Guimarães, MD, PhD Professor of Pediatrics Faculty of Medicine, Porto University Head Department of Neonatology Pediatric Hospital at São João Hospital Fátima Clemente, MD Consultant of Neonatology Pediatric Hospital at São João Hospital Gustavo Rocha, MD Consultant of Neonatology Pediatric Hospital at São João Hospital Ana Vilan, MD Neonatologist Pediatric Hospital at São João Hospital Carla Castro, RN Nurse Manager Pediatric Hospital at São João Hospital
NIDCAP Trainer	Fátima Clemente, MD Consultant of Neonatology Pediatric Hospital at São João Hospital

São João NIDCAP Training Center – continued**Developmental Clinical
Psychologist**

Sara Almeida, Psyc
Psychologist
Psychiatry Department
São João Hospital

NIDCAP Professionals

Madalena Ramos, RN, Msc
Carla Castro, RN
Lúcia Silva, RN
Florabela Neto, RN, Msc
Sara Almeida, Psyc
Fátima Clemente, MD

Lactation Program Coordinator

Susana Pissarra, MD
Consultant of Neonatology
Pediatric Hospital at São João Hospital

Contact

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APIB Training Center Directory**1. National NIDCAP Training Center, Boston, *Established 1982***

Brigham and Women's Hospital and Boston Children's Hospital, Boston, Massachusetts

Training Center Director**Heidelise Als, PhD**

Associate Professor of Psychology (Psychiatry),
Harvard Medical School
Director, Neurobehavioral Infant and Child Studies
Boston Children's Hospital

Training Center Medical Director**Steven A. Ringer, MD, PhD**

Assistant Professor of Pediatrics
Harvard Medical School
Director, Newborn Medicine
Brigham and Women's Hospital

Training Center Nursing Director**Marianne Cummings, RN, MSN**

Nurse Manager, Newborn Intensive Care Unit
Brigham and Women's Hospital

NICU Leadership**Steven A. Ringer, MD, PhD**

Assistant Professor of Pediatrics
Harvard Medical School
Director, Newborn Medicine
Brigham and Women's Hospital

Marianne Cummings, RN, MSN

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Training Center Associate Director	Deborah Buehler, PhD Developmental Psychologist University of California San Francisco School of Medicine, Division of Neonatology
Training Center Medical Director	Yao Sun, MD, PhD Associate Professor of Clinical Pediatrics Director of Clinical Programs NICU University of California San Francisco School of Medicine, Division Neonatology
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3. Centro Latinoamericano NIDCAP & APIB, *Established 2005*

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Training Center Medical Director	<p>Liliana Voto MD, PhD Professor of Obstetrics Universidad de Buenos Aires Mother and Child Center Director Hospital Fernández</p>
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NIDCAP Required Readings

NFI Quality Assurance Committee Approved, October 2, 2009

Theoretical/Conceptual

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