CALIFORNIA HEALTH FACILITIES FINANCING AUTHORITY (Authority)
Children's Hospital Program of 2008 (Proposition 3)

Resolution Number CHP-3 2022-01

April 28, 2022

Applicant: University of California, Irvine Medical Center
101 The City Drive South
Orange, California 92868

Project Site: 101 The City Drive South, Orange, California 92868

Amount Requested: $1,887,008.59 **Grant #:** UCI-03-03

On February 28, 2022, forfeited funds in the amount of $17,700,894.53 from the Children's Hospital Program of 2008 became available in the second funding round, on a first-come, first-served basis for applications received from any eligible University of California children's hospital.

Project:

University of California, Irvine Medical Center (UCI or Hospital) is seeking grant funds to reimburse the cost of six transcutaneous monitors and fund the cost of purchasing patient care equipment including, but not limited to: two transport isolettes with stretchers, ten neonatal transport cardiorespiratory monitors, two transport cooling units, one retina eye exam system, and 25 carestations.

Sources of Funds:		**Uses of Funds:**	
Prop 3 Request	$1,887,008.59	Equipment	$1,887,008.59
Internal Funds	10,850.30	Admin Costs	9,435.04
		COI	1,415.26
Total	**$1,897,858.89**	**Total**	**$1,897,858.89**

Staff Recommendation:

Staff recommends the Authority approve Resolution Number CHP-3 2022-01 for the University of California, Irvine Medical Center to receive a grant not to exceed $1,887,008.59, subject to all requirements of the Children's Hospital Bond Act of 2008.

(RD)

Proposition 3 Evaluation Factors:

Staff reviewed the provided application and other submitted materials in determining whether the applicant satisfactorily met the six factors identified in Proposition 3. Below is a summary of how the applicant met these specific factors.

Factor 1: The grant will contribute towards expansion or improvement of health care access by children eligible for governmental health insurance programs and indigent, underserved, and uninsured children.

Transport Isolettes with Stretchers:

The Hospital plans to purchase two transport isolettes with stretchers to replace the existing ones, which are at the end of their useful lives and no longer serviced by the manufacturer. A stretcher is a mobile surface used to transport patients, and an isolette is an incubation cover for neonates that need protection from environmental stressors, which can be integrated into the stretcher. The transport isolettes and stretchers are used to transport critically ill neonate patients to the Hospital's neonatal intensive care unit (NICU) from other hospitals without a NICU. The isolettes provide cardiorespiratory monitoring, ventilator support, and thermoregulation during transport.

In order to transport neonate patients from another hospital with the current isolettes and stretchers, UCI must use an ambulance with a lift, which is often not immediately available and can delay care. The new isolettes and stretchers no longer require an ambulance with a lift, thereby ensuring faster and more efficient emergency transport services and ultimately increasing access to treatment in UCI's NICU for critically ill neonates.

In fiscal year (FY) 2021, UCI admitted 408 newborns to the NICU, of which 298 were Medi-Cal patients, and approximately 50 were transferred to UCI's NICU from other hospitals for treatment.

Neonatal Transport Cardiorespiratory Monitors:

The Hospital plans to purchase ten new neonatal transport cardiorespiratory monitors for neonates born in the Hospital's Labor and Delivery (L&D) unit. Currently, UCI does not have any neonatal transport cardiorespiratory monitors. The Hospital plans to keep one monitor in each of the eight L&D rooms and have two monitors as backups. The monitors will be used right after delivery on newborns requiring immediate and critical care. Having the monitors readily available in the room at the time of delivery will enable the medical team to transport the patient immediately to the NICU. The monitors will be kept in every L&D room, preventing delays in care required when searching for a device to monitor the neonates, thereby improving timeliness and access to emergent medical care. Moreover, since the monitors permit remote access by multiple care providers, travel and scheduling barriers for medical consultations regarding treatment are removed. These monitors will increase access to care by enabling physicians who are not physically at the patient's bedside (remotely or elsewhere onsite) to actively participate in treatment.

UCI delivered 2,913 babies during FY 2020 and FY 2021, of which 733 were subsequently treated in the NICU immediately after birth.

Transport Cooling Units (Tecotherms):

The Hospital plans to purchase two transport cooling units (tecotherms) to replace its existing unit, which is at the end of its useful life and to have a second one as backup. UCI has transfer agreements with other hospitals in the region (Orange County, Riverside County, and San Bernardino County) that do not have adequate neonatal or maternal services. To transport critically ill newborns who are suffering a hypoxic-ischemic event[1], UCI must use a tecotherm, which is a device that provides immediate, full-body cooling to prevent the patient's condition from worsening. Currently, UCI is the only hospital in the area to provide tecotherms during transport. Purchasing a replacement and possessing a backup tecotherm ensures access to this critical, lifesaving service provided by UCI for neonates.

UCI receives approximately 50 neonates annually via transfer to its NICU, of which approximately five are seen for hypoxic-ischemic events.

Factor 2: The grant will contribute towards the improvement of child health care or pediatric patient outcomes.

Transcutaneous Monitors:

The Hospital has purchased six new transcutaneous monitors to replace some of its existing monitors, which are at the end of their useful lives because of software upgrading issues. The transcutaneous monitors provide continuous real-time tracking of carbon dioxide levels, which is an indicator of a neonate's brain and lung functionality. The transcutaneous monitors can rapidly detect if the patient is suffering from impaired respiratory gas exchange and is at risk for subsequent respiratory failure. The constant monitoring allows for early medical intervention and can prevent medical complications, such as respiratory failure or chronic lung disease in preterm babies. Also, because the transcutaneous monitors are placed on neonates' skin, the need for frequent blood draws to monitor neonates' carbon dioxide levels is significantly reduced. Frequent blood draws can be painful and could require blood transfusion due to blood volume depletion. The smallest and sickest infants in the NICU may require continuous monitoring for several months. The monitors improve patient outcomes by providing a less invasive way of tracking carbon dioxide levels, detecting early need for medical intervention, and reducing the chance of post-blood draw complications like blood volume depletion.

Retinal Eye Exam System (Retcam):

The Hospital plans to purchase one new Retcam to replace its existing one, which is at the end of its useful life. The new Retcam is able to perform advanced retinal eye exams, such as a fluorescein angiography[2], allowing physicians to diagnose and gauge the severity of retinopathy of prematurity[3] in neonates. Moreover, due to advances in technology, the new model of the Retcam enables more precise treatment plans, which ultimately aids in preserving healthy retinal tissue. Patient outcomes are improved by having early diagnosis, continuous monitoring, and more precise treatment plans, thereby reducing the need for painful and invasive laser eye surgeries that can result in blindness.

[1] A birth injury that results in the neonate suffering brain damage caused by oxygen deprivation and limited blood flow.
[2] A procedure that involves injecting fluorescent dye into the eye to examine blood flow within the eye.
[3] A condition of abnormal blood vessel growth in the retina that occurs in premature babies.

Carestations:

The Hospital plans to purchase 25 carestations to replace its existing carestations, which are over 13 years old and are experiencing malfunctions that result in delays to patient care and irregular temperature increases and decreases, which are detrimental to the neonatal patients. The new carestations increase thermal and physiological stability by having prewarming settings and improved airflow, and the carestation isolette can convert to a warmer. The new carestations will reduce unnecessary bed changes due to malfunctions, which will minimize the disruption of the thermal neutral environment and reduce the chance of infection to the neonates Also, the carestation can be attached to a transport shuttle, which shortens transport times. By limiting the chance of injury and illness during bed transfers, maintaining the healing environment in the carestation, and making transport more efficient, pediatric patient outcomes are improved.

Factor 3: The children's hospital provides uncompensated or undercompensated care to indigent or public pediatric patients.

In FY 2021, UCI incurred about $13.1 million in unreimbursed cost of care provided to pediatric patients with government-sponsored health care coverage (largely Medi-Cal) and also provided almost $2 million in uncompensated charity care to pediatric patients. UCI operates two community-based Federally Qualified Health Centers (FQHC), in Anaheim and Santa Ana, serving patients from newborn to adults. In calendar year 2020, the two FQHCs served a total of 23,733 patients, of which 6,511 were pediatric patients (0-17 years of age) and 142 were either underinsured or uninsured.

Factor 4: The children's hospital provides services to vulnerable pediatric populations.

In FY 2021, 77.6% of the inpatient pediatric patients (1,228 discharges), 52.9% of outpatient pediatric patients (7,598 unique patients), and 57.1% of outpatient pediatric visits (25,059 visits) at UCI were Medi-Cal insured.

UCI has transfer agreements with 24 hospitals and other clinical practices in adjacent counties, such as Los Angeles County, San Bernardino County, and Riverside County to improve access for children eligible for governmental insurance programs. The transfer agreements ensure the acceptance of babies who require acute care at UCI from hospitals that cannot adequately meet the pediatric patients' medical needs.

UCI also provides services for pediatric patients through programs such as the Pediatric Gender Diversity Program, which provides care for gender-expansive children through young adulthood with support services such as counseling, puberty suppression, and gender-affirming hormone therapy; and the Van School Clinic, which provides van-based mobile family medicine services at local schools.

In addition, UCI provides various services to vulnerable pediatric patients through the FQHCs, such as Vaccines for Children, which is a federally funded program that provides vaccinations to children who cannot otherwise afford the costs of the vaccination and Child Health and Disability Prevention Program, which coordinates transportation, scheduling services, and diagnostic and treatment services for pediatric patients who are uninsured or are Medi-Cal insured.

Factor 5: The children's hospital promotes pediatric teaching programs or pediatric research programs.

UCI's Department of Pediatrics trains more than 150 medical students annually. UCI has a joint pediatric residency program with Children's Hospital of Orange County and Miller Children's and Women's Hospital that trains over 80 categorical Pediatric residents annually as well as combined Pediatric-Genetics residents. Over a third of the graduates to date have received further training in pediatric subspecialties. Moreover, since 2014, over 80% of all pediatric residency graduates stayed in California to practice medicine. Additionally, UCI's Department of Pediatrics offers postdoctoral training programs, including, but not limited to, pediatric fellowships in Neonatology, Critical Care Medicine, Pulmonology, Infectious Disease, Child Neurology, Urology, Hospital Medicine, and Endocrinology. Another teaching program through UCI is its neonatal-perinatal fellowship, and since 2003, a total of 58 fellows have completed the program, of which 80% remained in California and are practicing as neonatologists. This program trains seven neonatal-perinatal fellows annually with the intent to expand the program to allow up to 12 fellows by 2023. UCI also promotes pediatric research through various programs, such as the Epilepsy Research Center and the Center for Autism Research and Treatment.

Factor 6: Demonstration of project readiness and project feasibility.

UCI purchased the transcutaneous monitors on February 11, 2022, and all monitors were received by February 23, 2022. The six transcutaneous monitors were placed in service on February 25, 2022 after they were inspected and tested by UCI's biomedical engineering staff. UCI plans to purchase the rest of the equipment by May 27, 2022 and have them in service by October 28, 2022.

Legal Review:

Although disclosures were made by the applicant, the information disclosed does not appear to detrimentally affect its financial viability or legal integrity.

Description of Applicant:

The Hospital, established in 1965 and located in Orange County, is a general acute care hospital with 417 beds licensed by the California Department of Public Health. The Hospital is part of the University of California system, which is governed by the Board of Regents of the University of California. The Hospital has a 30-bed NICU and has the county's only combined quaternary-level perinatal-neonatal program[4]. The Hospital has certified that its most recent financial audit is free of "going concern" language.[5]

[4] Tertiary and quaternary care represent the most advanced form of health care and may include complex surgery, such as neurosurgery, cardiac surgery, plastic surgery, and transplantation, as well as neonatology, psychiatry, cancer care, intensive care, palliative care, and many other complex medical and surgical interventions. Quaternary care may even involve experimental treatments and procedures. Quaternary-level care is an extension of tertiary-level care, which is the highest-level designation. The quaternary-level designation for perinatal-neonatal programs is only given to units that meet highly rigorous standards set by the state and is staffed and equipped to care for high-risk pregnancies and for newborns who are critically ill/extremely sick, premature or may require surgical intervention. It is considered an extension to tertiary care due to the advanced and specialized care that is provided by the hospital in the designated area of expertise.

[5] The absence of "going concern" language tends to suggest the organization is in good operational health for that fiscal year. The Authority's regulations define "Going Concern Qualification" in Section 7030(n) of the program regulations.

RESOLUTION NO. CHP-3 2022-01

RESOLUTION OF THE CALIFORNIA HEALTH FACILITIES FINANCING AUTHORITY APPROVING EXECUTION AND DELIVERY OF GRANT FUNDING UNDER THE CHILDREN'S HOSPITAL PROGRAM OF 2008 TO UNIVERSITY OF CALIFORNIA, IRVINE MEDICAL CENTER

WHEREAS, the California Health Facilities Financing Authority (the "Authority"), a public instrumentality of the State of California, is authorized by the Children's Hospital Bond Act of 2008 (Pt. 6.1 (commencing with Section 1179.50), Div. 1, Health and Safety Code; hereafter the "Act") and implementing regulations to award grants from the proceeds of general obligation bonds in an amount not to exceed $39,200,000.00 less the bond issuance and administrative costs to University of California, Irvine Medical Center ("Grantee") to finance eligible projects; and

WHEREAS, Authority staff reviewed the Grantee's application against the eligibility requirements of the Act and implementing regulations and, pursuant to the Act and implementing regulations, recommends approval of a grant in an amount not to exceed $1,887,008.59, less bond issuance and administrative costs, to the Grantee for the eligible project (the "Project") described in the application;

NOW THEREFORE BE IT RESOLVED by the California Health Facilities Financing Authority, as follows:

Section 1. The Authority hereby approves a grant of $1,887,008.59, less bond issuance and administrative costs, to the Grantee to complete the Project as described in the Children's Hospital Program Application and Exhibit A to this Resolution (Exhibit A is hereby incorporated by reference) within a project period that ends on December 31, 2023.

Section 2. The Executive Director and the Deputy Executive Director are hereby authorized for and on behalf of the Authority, to approve any minor, non-material changes in the Project described in the application submitted to the Authority and extend the project period completion date identified in Section 1 as authorized under the Act and implementing regulations. Nothing in this Resolution shall be construed to require the Authority to provide any additional funding, even if more grants are approved than there is available funding. Any notice to the Grantee shall indicate that the Authority shall not be liable to the Grantee in any manner whatsoever should such funding not be completed for any reason whatsoever.

Section 3. The Executive Director and the Deputy Executive Director are hereby authorized and directed, for and on behalf of the Authority, to draw money from the Children's Hospital Bond Act Fund (2008) not to exceed those amounts approved by the Authority for the Grantee. The Executive Director and the Deputy Executive Director are further authorized and directed, for and on behalf of the Authority, to execute and deliver to the Grantee any and all documents necessary to complete the transfer of funds that are consistent with the Act and implementing regulations.

Section 4. The Executive Director and the Deputy Executive Director of the Authority are hereby authorized and directed to do any and all things and to execute and deliver any and all documents which the Executive Director and the Deputy Executive Director deem necessary or advisable in order to effectuate the purposes of this Resolution and the transactions contemplated hereby.

Section 5. This Resolution expires December 31, 2024.

Date Approved: _____

EXHIBIT A

PROJECT DESCRIPTION

The proceeds of the grant will be used by University of California, Irvine Medical Center to reimburse the costs of transcutaneous monitors and fund the costs of various pediatric patient care equipment including, but not limited to: transport isolettes with stretchers, neonatal transport cardiorespiratory monitors, transport cooling units, carestations, and a retinal eye exam system.