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An Assessment of Construction and Lifetime Care Funding
for NIH Chimpanzees

Funding for the construction and expansion of chimpanzee sanctuary facilities and for the lifetime care of federally-owned or supported chimpanzees in sanctuary is not an insurmountable hurdle, but rather a challenge with several viable solutions. The precedence set by previous and to-date continuing National Institutes of Health (NIH) funding to laboratories, the taxpayer-funded materials and structures that can be made available to sanctuaries, as well as the lower per diems and indirect costs of sanctuaries point to fiscally viable routes to retire chimpanzees to sanctuary, as recommended in the January 23, 2013 report of the NIH Council of Councils (CoC) Working Group on the Use of Chimpanzees in NIH-Supported Research. Below we outline several of the avenues available to NIH to fund chimpanzee retirement in federal and private qualifying sanctuaries that can or do meet the criteria set forth in the CoC report.

A. Construction Funding

Construction costs will be accrued whether the chimpanzees remain in laboratories or are transferred to sanctuary. No existing laboratories meet the standards set by the CoC recommendations regarding ethologically appropriate environments. In a 2011 letter to Dr. Jeffrey Kahn, chair of the Institute of Medicine committee that assessed the necessity of chimpanzees in research, Dr. Thomas Butler, Chimp Haven Board of Directors Acting Chairperson and Retired Chairman of the Department of Laboratory Animal Medicine and director of the chimpanzee colony at the Southwest Foundation for Biomedical Research**,** outlined differences between laboratories and sanctuaries.

> In terms of space available, Chimp Haven offers much more indoor and outdoor space than any laboratory. The smallest enclosures at Chimp Haven are generally larger than the standard housing unit at laboratories. The largest enclosures at Chimp Haven are measured in acres. All chimpanzee groups at CH have access to multiple indoor housing areas. Space is of critical importance to maintain chimpanzees in appropriate social groups – large multi-male, multi-female groups…Almost all of our outdoor enclosures have natural ground covering, not cement or gravel, to provide a comfortable substrate. (Most laboratory chimpanzees live on cement or caging.) All indoor housing areas include nesting material at all times (e.g., hay blankets, pine straw) to encourage comfortable resting and nesting – a very important species-typical behavior. (Most laboratory chimpanzees have no access to nesting material.) Additionally, Chimp Haven's facility includes shelves, hammocks and multiple structures to provide complexity and use of three dimensional space.[1]

[1] Butler, T. 2011. "Chimp Haven Letter to Dr. Jeffrey Kahn IOM/NAS Committee on the Use of Chimpanzees in Biomedical and Behavioral Research."

Laboratories would require extensive construction costs at federal expense to upgrade their facilities to meet the CoC recommendations. Federal dollars would be better spent on construction funding to continue expansion and building at the federal sanctuary, which, according to the CoC, "is the most species-appropriate environment currently available and thus is the preferred environment for long-term housing of chimpanzees no longer required for research," or at other private qualifying sanctuaries whose sole purpose is to provide lifetime care for chimpanzees than to give additional money for construction to laboratories. Laboratories' sole purpose is to do research, something for which both the Institute of Medicine and the CoC see no essential current need and limited future need, if any. Federal dollars spent would go further in sanctuaries than in laboratories and have more immediate implications for chimpanzee well-being. The Chimpanzee Health Improvement, Maintenance, and Protection (CHIMP) Act requires that at least 10% of construction costs come from non-federal contributions, whereas 100% of construction costs at laboratories have been funded by the federal government, even in the absence of active protocol use, to house and maintain a population of chimpanzees for possible research use. The consistent and accelerating decrease in the need for and use of chimpanzees suggests that NIH dollars have been granted to laboratories to hold, at great taxpayer expense, a research resource that was not being used. For example, in fiscal year 2011, of the more than 94,000 active projects sponsored by NIH, only 53 used chimpanzees (0.056%).[2] Even the two areas of historic wide use have significantly declined. The number of HIV/AIDS related chimpanzee studies has dropped 90% in the last decade, and the use of alternatives in hepatitis C research for the past 30 years shows an 80-fold increase.[3]

Following passage of the 2000 CHIMP Act which mandated that chimpanzees "no longer needed" be retired and accepted into a federal sanctuary system, in 2001 NIH issued a Request for Proposals (RFP) to construct and operate the National Chimpanzee Sanctuary System and called for immediate construction to house a minimum of 200 chimpanzees already identified for retirement. The RFP included language for expansion to 900 chimpanzees possibly using subcontractors or multiple sites. In response, Chimp Haven's contract proposal to this Request for Proposals described plans and a willingness to care for up to 900 chimpanzees through a subcontracting approach. As of 2013, Chimp Haven has made it clear that, with funding, it could care for up to 425 chimpanzees at its current location alone.

While funding for expansion at Chimp Haven to meet their capacity has not been granted, NIH has recently funded laboratories for continuing maintenance and construction of their facilities to house chimpanzees. Between 2000 and 2010 alone, laboratories received more than $7 million for 100% of construction costs to add on to their current facilities (Appendix A). The NIH Grants Policy states, "NIH construction awards generally require that a facility be used for biomedical or behavioral research as long as needed for that purpose. NIH defines this period as 20 years from the date of beneficial occupancy unless another period is prescribed by statute…If, during the required usage period, the facility is no longer used for the original intended purpose and

[2] Institute of Medicine. 2011. *Chimpanzees in Biomedical and Behavioral Research: Assessing the Necessity*. The National Academies Press. http://www.nap.edu/openbook.php?record_id=13257.
[3] Bailey, J, J Balcombe, and T Capaldo. 2007. *Chimpanzee Research: An Examination of Its Contribution to Biomedical Knowledge and Efficacy in Combating Human Diseases*. Project R&R: Release and Restitution for Chimpanzees in U.S. Laboratories. http://www.releasechimps.org/pdfs/chimp-efficacy-paper-main.pdf.

NIH did not provide prior approval for an alternate use, NIH may recover its share."[4] The policy further states, "The usage obligation may also be transferred to another facility with the prior approval of NIH. If approved, the remaining usage obligation shall be released from the original facility constructed with grant funds and transferred to the new facility." Therefore, construction elements previously awarded to laboratories are transferable to federal sanctuary with NIH approval. Further, it must be noted that Chimp Haven does allow research at its facility provided it meets IACUC approval. As such, it is and will continue to be an option for non-invasive behavioral research as well as post-mortem studies. This should have made it eligible for 100% funding, as NIH awards labs.

Supplies and equipment (such as steel, wire, perches, ropes and swings, feeding containers, medical supplies and equipment), enrichment structures, cages, Primadomes™, and other materials which were purchased with NIH funding, can and should be transferred to the federal sanctuary or private qualifying sanctuaries to offset costs to meet the demand for more sanctuary space. According to Primadome™ supplier Brandes Brothers Constructors, Inc., the NIH has actually required its Primadomes to be made "relocatable." Transferring existing federally purchased Primadomes™ would avoid an estimated $70,000 cost for each one. For example, in 2002, the Keeling Center for Comparative Medicine and Research was awarded Grant 1G20RR016211-01, "Chimpanzee Area Alterations and Renovations," that allocated roughly $161,000 specifically for the purchase and assembly of Primadomes™. Between 2002 and 2006, the New Iberia Research Center was awarded Grant 1C06RR016483-01, "Expansion of NIH Chimpanzee Holding Facility," that allocated $863,576 for the construction of eight Primadomes.[5] These Primadomes should now be transferred to federal sanctuary to offset further construction costs.

While federal and qualifying sanctuaries provide paradigmatic, open, and expansive living space for its chimpanzees, the Primadomes™ could serve as transitional housing for chimpanzees, housing for ill or physically debilitated residents, or for residents with special needs for whom large areas or groups cannot provide for their psychological and or physical well-being. Eliminating costs to provide for such necessities, by definition, allows new dollars to go further in expanding the sanctuaries' more typical environments of large open spaces. There is already precedence for the feasibility of transferring materials for enclosures, including when a private facility, the Laboratory for Experimental Medicine and Surgery in Primates (LEMSIP), transferred supplies and materials for caging to be used for 109 chimpanzees who were transferred to sanctuary in one of the first and at the time largest retirement of chimpanzees from research.

NIH also has awarded funding to laboratories looking to expand housing in order to take in more chimpanzees from other facilities. From 2002 through 2006, the New Iberia Research Center was awarded just under $2 million (Grant 1C06RR016483-01, "Expansion of NIH Chimpanzee Holding Facilities") to "provide for housing an additional 80 to 100 adult chimpanzees which are

[4] NIH Grants Policy Statement. Accessed January 30, 2013 from http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part9.htm.
[5] NIH Grants Policy Statement 10.6.4 Use of Facility and Disposition. Accessed January 30, 2013 from http://grants.nih.gov/grants/policy/nihgps_2011/nihgps_ch10.htm#facility_use_and_disposition.

being held at other institutions." In another example involving the transfer of chimpanzees from Alamogordo Primate Facility (APF) to Texas Biomedical Research Institute (Grant 1U42RR032577-01 for the budget period of September 2011 through July 2012), NIH covered costs of "the dismantling of four Primadomes™ and several large playgrounds at APF and their transport to San Antonio [Texas Biomedical Research Institute], together with transportation, installation, and calibration of all NCRR-owned equipment that is currently at APF."

NIH demonstrated that it would pay for laboratory construction and equipment costs for chimpanzees no longer eligible for use in research in a September 2012 grant awarded to Texas Biomedical Research Institute (Grant 3U42OD011184-02S2 Revised, for the budget period of September 2012 through July 2013 for nearly $2.7 million). This grant provided funding for equipment for the transferred chimpanzees (such as blood pressure monitors, mobile lift tables, stretchers, a dental unit, an I-Stat machine, and ECG machine, an anesthesia machine, a camera system, etc.) in the amount of nearly $130,000, for supplies and medicine for the transferred chimpanzees at an additional $67,000, and for alterations and renovations for the facility at over $15,000. Salaries, fringe benefits, personnel costs, consultant services, travel costs, "other" costs, and indirect costs comprised the remainder of the $2.7 million grant.

B. Transfer Funding

The NIH has awarded grants for the transfer of chimpanzees between laboratories. Such grants were intended and utilized for the same purposes as would be needed for the transfer of chimpanzees from laboratories to federal or private qualifying sanctuaries. For example, Texas Biomedical Research Institute was awarded Grant 1U42RR032577-01, for a total of $471,185 and a cumulative total of $19,117,453 for the project period September 2011 through July 2016, to transfer chimpanzees from APF to Texas Biomedical Research Institute. The budget for transfer included "habituating the animals to their new environment, monitoring their behavior, and resolving problems that arise," as well as $9,000 in pre-transfer funds to travel between APF and Texas Biomedical Research Institute "for the purposes of physically examining chimpanzees and health records prior to relocation, consulting with APF staff in regard to characteristics of individual chimpanzees and social groups, and examining and planning the removal and transportation of outdoor cages as well as major equipment." Post-transfer budget included funding for salaries, "routine health checks…, non-research related pathology services, medicines and drugs, special care required for sick or injured animals, and completed necropsies of chimpanzees that die or are euthanized for health reasons." It must be noted that not all of the chimpanzees who were transferred, if any, were subsequently used in active research protocols.

In late 2012, Texas Biomedical Research Institute was awarded grant 3U42OD011184-02S2, "NIH-Owned Chimpanzee Research Resource at the SNPRC," which provided for both the husbandry and transfer of 111 NIH-owned chimpanzees from the New Iberia Research Center for housing purposes, specifically not to be used for research. The grant abstract states, "The sole specific aim of this supplement over the next year is to maintain a stable, healthy, and well defined population of chimpanzees and to coordinate the relocation of chimpanzees from the New Iberia Research Center to the Texas Biomedical Research Institute." The budget included funds for husbandry, behavioral management, socialization, enrichment, and staff training.

However, this planned transfer of 111 chimpanzees was cancelled, and they are instead in the process of transferring to federal sanctuary, Chimp Haven, though funds for construction at Texas Biomedical Research Institute were not or have not yet been transferred to Chimp Haven to be used for the same purposes.

Finally, it must be noted that given the current Congressional, public, scientific, and NIH interest in retiring chimpanzees and the financial responsibility for NIH to do so, none of the previous funds allocated to building or caring for chimpanzees in labs should be allowed to be transferred to other uses. There is a fiscal demand to provide housing for chimpanzees of significant, even if yet to be determined, numbers of federally-owned or supported chimpanzees. Recuperating equipment, supplies, and materials will go a long way in meeting new construction, equipment, and supplies costs in sanctuary. In situ retirement is not and should not be an option as labs cannot meet the criteria set forth by the CoC. Rather, only sanctuary retirement should be considered as providing lifetime care for elderly, sickly, as well as young and healthy chimpanzees retired from research as is their mandated mission.

C. Lifetime Care Funding

Prohibiting euthanasia as a management tool, the CHIMP Act directs the Secretary to "reserve" funding for the "operation (and establishment, as applicable)" of the sanctuary system, but then says the Secretary cannot reserve more than $30 million for this purpose. §287a-3a(g)(1). However, this provision does not say that Health and Human Services (HHS) or NIH is prohibited from spending more than this amount on sanctuaries nor does the cap release NIH from its mandated responsibility for retiring and providing lifetime care. There is an argument within the parameters of the CHIMP Act's language that given HHS's duty under the Act to "provide for the establishment and operation…of a system to provide for the lifetime care of [surplus] chimps," §287a-3a(a) that NIH is required to find any additional funding that is needed to care for chimpanzees no longer needed for research.

NIH is responsible for the lifetime care of the chimpanzees,[6] and thus will be paying for their housing and maintenance whether they are kept in laboratories or in sanctuaries. Instead of providing the funds for the chimpanzees' care to laboratories, NIH has or needs to seek the authority to transfer such funding, in full, to the federal sanctuary. Chimp Haven's 10-year contract (2002-2012) to both establish and maintain a sanctuary was for $22,279,058. This is less than the amount that New Iberia Research Center, Texas Biomedical Research Institute, MD Anderson, Yerkes, and APF have received in a single year. These facilities received nearly $28 million in 2008 and $33 million in 2009 from NIH for housing and maintenance type grants.[7] The vast majority of the chimpanzees it funded were not being used in nor needed for research.

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[6] See CHIMP Act discussed above; James Anderson, M.D., Ph.D. statement to the Senate Environment and Public Works Committee Subcommittee on Water and Wildlife April 24, 2012, "NIH is deeply committed to the care and welfare of chimpanzees."; and
Council of Councils Working Group on the Use of Chimpanzees in NIH-Supported Research Report p. 83, "All chimpanzee experiments done in the last 20 years have been survival experiments involving BSL2 infectious agents, and most animals have been used for multiple protocols (e.g., HBV, HCV, HIV-1); funding for these experiments has included the cost of lifetime care."

[7] Some housing and maintenance grants include support for other nonhuman primates in addition to chimpanzees.

To further illustrate the discretion NIH has in allocating funds it can be noted that Chimp Haven's contract was nearly half of the amount Charles River Laboratories received in a 10-year contract to house and maintain chimpanzees at APF (see Section 3 below) – the overwhelming majority of whom were not used in research. Further, those few used in research were transferred to other facilities as required in an agreement between NIH and the U.S. Air Force, actually driving up the per capita award as APF population numbers decreased while funding did not.

In addition to the transfer of new housing and maintenance grants from laboratories to federal or private qualifying sanctuary, if chimpanzees are transferred during a current grant, unobligated funds from the ongoing grant to the laboratory can be transferred to sanctuary. Housing and maintenance grants require recipients to inform NIH of unobligated funds remaining from a grant, as carry-over of an unobligated balance is not automatic.[8] Though NIH could with prior request allow such funds to be transferred to another project, such permission would be negligent in the face of NIH's fiscal crisis for construction and housing and maintenance dollars for the lifetime care of chimpanzees as mandated by both the CHIMP Act and, if adopted, by the CoC Working Group's recommendations, which passed in a 13 to 0 vote by the CoC.

Not only would transferring chimpanzees in laboratories to sanctuaries be in line with the CoC recommendations, but the same funding would provide more money directly for the care of the chimpanzees. First, for those chimpanzees retired under the CHIMP Act, 25% of expenses associated with the operation of the federal sanctuary must be provided by non-federal private contributions, yet funding of laboratories has not had nor currently has any such requirement with the federal government covering 100% of housing and maintenance expenses in laboratories. As evident by a previous NIH decision on September 21, 2012 to send chimpanzees "permanently ineligible for research" from the New Iberia Research Center to Texas Biomedical Research Institute's Southwest National Primate Research Center, NIH already has the authority to grant all new chimpanzees retired under the recommendations of the CoC 100% of costs to fulfill its obligation and alleviate the burden to sanctuaries, as it has for labs, of raising additional matching funds. With such large numbers of chimpanzees in need of care for decades forward, it is not only a position allowable by NIH's own mandates (given their status as "retired" from biomedical research yet available for further non-invasive behavioral and/or post-mortem research and thus continuing to be a "research resource") but also one that is ethical and fully responsible. Funding short of that puts undue burden on the ability of other private sanctuaries to continue to raise 100% of their funds from the public for the care of abandoned, retired, and abused chimpanzees.

The current crisis in numbers of unneeded chimpanzees for research is not a new problem. NIH has in fact been paying for their care even in absence of their use for many years. The roots of this long standing financial responsibility come from past NIH decisions and overzealous

[8] See: page 3 grant 9U42Od014838-11 Revised, Chimpanzee Biomedical Research Program Limited Competition (U42) states "Carry over of an unobligated balance into the next budget period requires Grants Management Officer prior approval."; NIH Grants Policy Statement states "Automatic carryover of unobligated balances applies to all awards except…cooperative agreements (U)…"; and Electronic Code of Federal Regulations, Title 45, § 74.28, "Where a funding period is specified, a recipient may charge to the award only allowable costs resulting from obligations incurred during the funding period and any pre-award costs authorized by the HHS awarding agency pursuant to § 74.25(d)(1)."

federally funded breeding. NIH's current trajectory is taking full responsibility for its chimpanzees – for both scientific (they are not a viable biomedical research resource) and ethical (reiterating its commitment for their lifetime care) reasons. NIH's current and laudable position must be backed by funding that does not unfairly share the fiscal burden with sanctuaries willing and able to be part of the solution for NIH. Further, NIH funds provided to laboratories are subject to a much higher indirect cost rate than the indirect costs of either federal or private qualifying sanctuaries, as discussed below in Section C.4. As such, every federal dollar granted to federal or a private qualifying sanctuary goes further in direct chimpanzee care. Finally, for those chimpanzees provided 100% costs, federal or private qualifying sanctuaries would have no accompanying fundraising expenses thus driving down the indirect cost percentage even further.

1. *Sanctuary eligibility for comparable NIH funding*

NIH funds behavioral research and research involving post-mortem tissues and examinations. Because the CHIMP Act allows for noninvasive behavioral studies and requires that "necropsy reports on chimpanzees in the sanctuary system [are made] available on a reasonable basis to persons who conduct biomedical or behavioral research," chimpanzees retired to federal sanctuary could be considered a "research resource" and receive the funding currently awarded to laboratories. The only provision is that the chimpanzees in protocols, as required by the CHIMP Act, are for projects involving only noninvasive or post-mortem research as they now are upon approval of the sanctuary IACUCs. Private qualifying sanctuaries may also consider meeting requirements for any federally retired chimpanzees that would allow for such non-invasive studies and therefore make them eligible as well.

As an example of prior funding for noninvasive behavioral research, $99,000 was awarded to Georgia State University (Grant 5P01HD038051, "Comparative Studies of Primate Spatial Cognition and Memory," between 2000 and 2007) to "assess how well chimpanzees can recall and report objects, locations, and events that they witnessed hours or days earlier in a large-scale environment." As an example of prior funding for post-mortem research, $184,724 was awarded to Emory University (Grant 5P51RR000165, "Interrogating the Genome to Uncover Human Specializations of Brain & Cognition") to use chimpanzees in "identifying differences in gene and protein expression…using unfixed tissue samples from short post-mortem time." See Appendix B for more information and examples of behavioral and post-mortem research grants.

A portion of current or previous grant money awarded to laboratories is allocated to non-biomedical activities including veterinary care, facility maintenance, husbandry, behavioral management, enrichment studies, and behavioral studies. Because these same activities are conducted and/or allowable at federal sanctuary, the funding currently provided to laboratories under housing and maintenance type grants should qualify to be transferred to federal sanctuary. For example, a grant was awarded in August 2012 to Texas Biomedical Research Institute for over $523,000, which acknowledged in the accompanying grant progress report that the program was strictly maintaining the chimpanzees and no research was being conducted (Grant 8U42OD011184-02 Revised, NIH-Owned Chimpanzee Research Resource at SNPRC). Another active grant, 3U42OD011184-02S2 "NIH-Owned Chimpanzee Research Resource at the SNPRC," notes that funds for "routine husbandry, high quality behavioral management and

enrichment are critical." This grant specifically allocates money for maintaining "a stable, healthy, and well defined population of chimpanzees," and behavioral services include socialization and animal training, environmental enrichment, behavioral management, and staff training.

As another example, active grant 8U42OD011197-12 "Chimpanzee Research Resource" for $2,064,160 at the MD Anderson Cancer Center has primary objectives of "colony care and maintenance," and "provision of the infrastructure needed to conduct studies," where the type of studies is not specified, i.e. behavioral studies could be included. At the same facility from 2003 through 2010, the NIH awarded $27,143,626 (Grant 2U24RR015090, titled "Establishment/Maintenance of Biomedical Research Colony" until 2006 when title changed to "Chimpanzee Biomedical Research Resource") specifically for "the provision of animal husbandry and health (veterinary) care, provision and maintenance of physical facilities, allocation of animals, and generation of income." Nearly $255,000 was allocated for veterinarian care, and $50,829 for a behavioral scientist. Funds were also granted for studies on the value of environmental enrichment, which explored positive reinforcement training, presentation medium, housing types, nesting materials, response to novelty, control over enrichment, etc.

See Appendix C for more information and examples of funding provided to laboratories for some of the same projects and activities that might be conducted at sanctuaries like Chimp Haven.

Chimp Haven meets the requirements outlined in an August 2010 Request for Application (RFA-RR-10-008) to house chimpanzees. The purpose of the grant as outlined in the application request is "to maintain colonies of chimpanzees that are, have been, or will be used in NIH-sponsored research: providing for the complex social, behavioral, and medical needs of the aging research chimpanzee population" [emphasis added]. The request further states that non-profits with 501(c)(3) IRS status and who have "previously been funded to support NCRR-owned or -supported chimpanzees" are eligible to apply. Chimp Haven meets both of these standards for non-invasive behavioral research.

2. *NIH's award of housing and maintenance funds to New Iberia Research Center for chimpanzees no longer used in research*

A recent NIH grant received by New Iberia Research Center provided funding strictly for maintenance and transport of chimpanzees and excluded research. It mirrors the type of grant that should be awarded to Chimp Haven for retirement of the chimpanzees. The award from September 19, 2012 (9U42OD014838-11 Revised, Chimpanzee Biomedical Research Program Limited Competition) for nearly $2 million states, "This award provides funding for the maintenance and transport of the chimpanzees, no funds may be used to conduct animal subjects research" [emphasis added]. The grant lists the project aims as:

> 1. To maintain [Chimpanzee Breeding and Research Program] chimpanzees in a setting that promotes species appropriate social interactions.
> 2. To monitor the health and wellbeing of the animals with state of the art veterinary care.

3. To coordinate the transfer of CBRP chimpanzees to other NIH supported facilities over the period of one year. This includes health screening, formation of new social groups, and arranging for safe shipment to new facilities.

3. NIH funds the Alamogordo Primate Facility, a holding facility for chimpanzees

APF is supported by the NIH and serves as a research reserve facility for government supported chimpanzees. According to an agreement made between NIH and the U.S. Air Force, "no invasive research shall be conducted on chimpanzees currently held at the APF."[9] The few individuals used in active research must be transferred to other facilities and cannot be returned to APF. Since 2001, the chimpanzees at APF have been managed by Charles River Laboratories Inc. (CRL) under an NIH contract.

In 2001, NIH awarded CRL a $42.8 million, 10-year contract to manage APF. The NIH contract with CRL was originally scheduled to end in May 2011, but NIH granted CRL a $3.2 million extension through December 2011. NIH has fully funded this facility, at a level much higher than Chimp Haven has received, even though only 38 chimpanzees of the 286 chimpanzees who have been held at the facility have been transferred into research, according to available records.

Further, NIH's October 2012 census[10] indicates that CRL receives a per diem of $65.50 per chimpanzee to house and maintain chimpanzees, while Chimp Haven's per diem was $52.80 and private facilities like Save the Chimps report a per diem of only $41 for exemplary environments and veterinary care. The federal government would see a savings of more than $750,000-$1.4 million per year for the transfer of the 162 chimpanzees at CRL alone to sanctuary. These savings show a consistent historical trend – a 2009 review showed that CRL's per diem per chimpanzee was $67 while Chimp Haven's was $41.[11] The per diem savings at Chimp Haven would be even greater if Chimp Haven were allowed 100% funding in housing and maintenance grants as is CRL, and could then defer fundraising costs.[12] Additionally, savings would have been more pronounced if greater numbers of chimpanzees had been sent to the sanctuary as planned. It has been ascertained (see S. Ross, PhD, Lincoln Park Zoo's Lester E. Fisher Center for the Study and Conservation of Apes) that a population of approximately 166 chimpanzees allows a facility to attain "economy of scale." Federal sanctuary, due to lack of funding and fewer chimpanzees retired to it, had not reached that number despite its willingness and capacity to do so with funding.

4. Taxpayer savings and indirect costs

[9] Institute of Medicine. (2011). *Chimpanzees in Biomedical and Behavioral Research: Assessing the Necessity*. Washington, DC: The National Academies Press.

[10] NIH. 2012. Costs for Maintaining Humane Care and Welfare of Chimpanzees, October 23, 2012. Accessed January 30, 2013 from http://dpcpsi.nih.gov/orip/cm/chimpanzee_maintenance.aspx

[11] Capaldo, T, M Owens, and M Lary. 2010. *An Economic Analysis: Chimpanzee Housing and Maintenance in U.S. Laboratories and Sanctuaries*. Project R&R: Release and Restitution for Chimpanzees in U.S. Laboratories.

[12] This trend in lower per diem costs and government savings in sanctuary versus laboratories is longstanding. Take for example the 2009 figures of CRL, Chimp Haven, and Save the Chimps, which had comparable numbers of chimpanzees: The per diems were: $67 at CRl, $41 at Chimp Haven, and $38 at Save the Chimps.

The 1997 Institute for Laboratory Animal Research Report (ILAR) report *Chimpanzees in Research: Strategies for their Ethical Care, Management and Use*, which provided impetus for the CHIMP Act, opined that "sanctuaries offer an opportunity for substantially reducing costs of long-term maintenance of chimpanzees without compromising high standards of well-being." In addition, the report noted that "the larger the number of animals moved to a sanctuary…the lower the annual marginal costs of adding one chimpanzee to the facility."[13] Thus, retiring chimpanzees to sanctuary has been known for years to be economically beneficial to the American public – in tax dollar savings and the ability to reallocate some funds to more promising areas of biomedical research.

Sanctuaries have the ability to house chimpanzees in better facilities at a lower cost in part due to their lower indirect cost rates. A typical grant includes a significant award for indirect costs, or "[c]osts that are incurred by a grantee…and cannot be identified specifically with a particular project or program…"[14] NIH further defines indirect costs as: "Costs associated with the general operation of an institution and the conduct of its research activities…HHS [Health and Human Services] supports full reimbursement [for indirect costs] for most grant programs. Examples of allowable indirect costs include: Depreciation use allowance; Facilities operation and maintenance; General administration and expenses; Departmental administration; Sponsored project administration; and Libraries."[15,16] While most U.S. 501(c)3 not-for-profit organizations adhere to a standard of 25% or less on indirect costs,[17] a review of 2009 laboratory housing and maintenance type grants showed that awards for indirect costs range from 39% to 71%, or on average 51%, of the total award (see Table 1). The New Iberia Research Center, Texas Biomedical Research Institute, MD Anderson, Yerkes, and APF received nearly $28 million in 2008 and $33 million in 2009 from NIH for housing and maintenance type grants.[18] Out of that $28 and $33 million, roughly half was allocated for indirect costs – $14 and $17 million in taxpayer money. In the midst of federal budget cuts, $14-$17 million in "indirect cost" handouts to institutions is a significant waste of tax dollars that could have provided far better care for chimpanzees in sanctuary and been redirected to more valid areas of research. On the other hand, Chimp Haven's 2012 contract indicated a 34% indirect cost rate. It must be repeated that if the sanctuary did not have to engage in fundraising to meet match requirements, as the laboratories have not had to do, and was allowed to reach full capacity, the indirect cost would be driven down even lower.

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[13] Institute for Laboratory Animal Research Committee on Long-Term Care of Chimpanzees. 1997. *Chimpanzees in Research: Strategies for Their Ethical Care, Management, and Use*. Compass Series. Washington, D.C.: National Academies Press.

[14] National Institutes of Health (NIH). Office of Extramural Research. 2009. "Glossary & Acronym List – Facilities & Administrative Costs." http://grants.nih.gov/grants/glossary.htm#F3. Accessed 31 January 2013.

[15] National Institute of Allergy and Infectious Diseases (NIAID). 2009. "NIAID Glossary of Funding and Policy Terms and Acronyms – Facilities and Administrative Costs."
http://www.niaid.nih.gov/researchfunding/glossary/Pages/f.aspx#fanda. Accessed 31 January 2013.

[16] In comparison, direct costs are defined as "[c]osts in a grant or contract that support a project or program. Allowable direct costs include: Salaries and fringe benefits of principal investigators and supporting staff; Equipment and supplies; Travel expenses; Fees and supporting costs for consultant services; Contract services (also called sub-award); Costs for consortium participants; Inpatient and outpatient costs for human subjects; Alterations and renovations to facilities…; Publications and other miscellaneous expenses" (NIAID 2009b).

[17] Charity Navigator. 2010. http://www.charitynavigator.org (accessed August 2010).

[18] Some housing and maintenance grants include support for other nonhuman primates in addition to chimpanzees.

As a further example of increased extraneous costs of laboratories, included in the $28 million NIH awarded in 2008 to New Iberia, Texas Biomedical Research Institute, MD Anderson, and Yerkes was a $4.5 million award for CRL[19] to house and maintain chimpanzees at APF. This $4.5 million was a distribution of a 10-year, $42.8-million contract that NIH had with CRL. This contract had a different structure and terms than the typical NIH housing and maintenance type grant; for example, in addition to the over $4 million a year, CRL was allowed an undisclosed "annual incentive fee" that could be earned. NIH will not disclose the amount of or criteria for this award, calling it "proprietary information."[20] Further, information as to what CRL negotiated as a percentage of their total NIH contract for indirect costs is also unavailable.

D. NIH's Funding Discretion

Housing chimpanzees in sanctuaries rather than labs would save NIH and therefore U.S. taxpayers money, allow our federal sanctuary to fulfill its mission, and provide a superior life of excellent care and ethologically appropriate housing for the chimpanzees. According to the North American Primate Sanctuary Alliance (formerly Alliance of North American Chimpanzee Sanctuaries):

> Based on experience at the two larger Alliance member sanctuaries that experience this economy of scale, annual costs per chimpanzee of $13,140-$16,790 (range $36-46 per day) for direct care and administrative costs are achieved. An average daily cost per chimpanzee of $41 is anticipated with expansion of sanctuaries to accept additional chimpanzees retired by the government…Comparing an average cost of $41 per day in a sanctuary with the comparable average laboratory per diem of $60 would result in savings of approximately $90 million over the lifespan of the chimpanzees for the approximately 500 government owned chimpanzees (Alliance of North American Chimpanzee Sanctuaries 2010).

More recently, NIH released figures of its negotiated per diems for federally-owned and/or supported chimpanzees. The range of rates clearly demonstrate that NIH has liberty and discretion as to where and how to appropriate money, and the ability to decide where and how to appropriate funds to house and maintain chimpanzees – including in sanctuary. NIH's figures for the costs for maintaining chimpanzees who they own or support suggests a discretionary range even among laboratories, as demonstrated by figures released by NIH on October 23, 2012:

[19] CRL is a publicly traded, for-profit organization. In 2007, CRL generated $1.2 billion in revenue and realized a profit of $158 million (CRL 2007).
[20] Received in response to FOIA request.

Research Facilities[21]			
Facility	# of Chimpanzees, as of 10/23/12 *(total)*	NIH cost**, $M/year *(total)*	NIH cost, $/animal/day, *(avg)*
NIRC	110	1.86	46.3
KCCMR	151	2.56	46.5
KCCMR, DVR	16	.39	67.4
SNPRC, U42	24	.52	59.4

Research Reserve Facility			
Facility	# of Chimpanzees, as of 10/23/12 *(total)*	NIH cost**, $M/year *(total)*	NIH cost, $/animal/day, *(avg)*
APF	169	4.04	65.5

E. Conclusion

Hundreds of chimpanzees who have been subjected to years of laboratory confinement and research deserve to live out the remainder of their lives in sanctuaries expert in providing for their physical and psychological well-being in far more ethologically appropriate environments than any current U.S. laboratory can or does provide. Both the CoC and Congress, as evident by the enactment of the CHIMP Act in 2000 and the unprecedented number of co-sponsors for the Great Ape Protection and Cost Savings Act, have demonstrated that they have concluded chimpanzees no longer being used in or needed for research should be sent to sanctuary instead of languishing in laboratories at enormous costs to the quality of their lives and to taxpayers. Materials and supplies purchased with federal dollars are the property of our government and can and should be transferred to federal sanctuary or any private qualifying sanctuaries eligible and willing to receive retired federal chimpanzees thus mitigating, even if not eliminating, the expense of new construction. Otherwise, the government will shoulder the same burden twice and private labs will benefit at the expense of taxpayers, sanctuary, and chimpanzees. This paper outlines strong arguments that sanctuary qualifies for construction, transfer, and housing and maintenance grants, and the NIH therefore has the necessary means to transfer budget dollars and materials it has already paid for as a major contribution to the funding needed to realize the IOM and CoC's recommendations. Sanctuary can be funded even in the absence of "new"

[21] NIH. 2012. Costs for Maintaining Humane Care and Welfare of Chimpanzees, October 23, 2012. Accessed January 30, 2013 from http://dpcpsi.nih.gov/orip/cm/chimpanzee_maintenance.aspx.

sources of dollars. While such additional funding should be pursued, it must be noted that the lifetime care of federally-owned or supported chimpanzees is neither a new expense nor an expense and responsibility of the federal government that changes because chimpanzees are transferred from private labs to sanctuary. There will be only the following positive changes: the costs will be somewhat less and the quality of life for the chimpanzees overwhelmingly better. NIH has awarded grants to laboratories for the same purposes that the federal sanctuary would be using the dollars, and the same funding that is already supporting chimpanzees in laboratories can and must now be used to support the very same chimpanzees in sanctuary.

Table 1

2009 Indirect Costs in Millions Allowed in Federal Grants

Facility	Amount Awarded ($)	Indirect Costs Percentage (%)	Indirect Costs Amount ($)
New Iberia Research Center	1.03	44	0.45
Texas Biomedical Research Institute	10.9	66 (71)	7.2 (7.7)
MD Anderson Cancer Center	3.1	50	1.5
Yerkes National Primate Research Center	12.6	39	4.9
Alamogordo Primate Facility	5.05	51	2.6
Total	32.7	50 (51)	16.4 (16.7)

Sources: Facility housing and maintenance grants awarded by NIH for 2009, grant progress reports, and NIH 2009 "Financial Status Reports" received in response to NEAVS' Freedom of Information Act (FOIA) request.

Appendix A

NIH Construction Grants to Chimpanzee/Primate Laboratories

According to an NIH Research Portfolio Online Reporting Tools (RePORT)[22] database search, NIH has provided millions of dollars for projects related to expansion, construction, and/or renovation of chimpanzee research facilities. Grants since 2000 are listed below. These grants are in addition to housing and maintenance grants, and additional grants that may relate to multiple species.

The Keeling Center for Comparative Medicine and Research (location of the MD Anderson Cancer Center):

In 2002, the Keeling Center received $2,583,906 in NIH funding in the form of two main grants. Roughly $161,000 of this was spent on the purchase and assembly of Primadomes.

[22] RePORT "provides access to reports, data, and analyses of NIH research activities, including information on NIH expenditures and the results of NIH supported research." Available at: http://report.nih.gov/.

Year	Grant Amount	Grant Number	Grant Name	Grant Period
2002	$624,000	1G20RR016211-01	Chimpanzee Area Alterations and Renovations	Sept 20, 2001-Sept 19, 2004
	$1,959,906	1C06RR017724-01	Extramural Research Facilities Construction Project	Sept 15, 2002-June 20, 2007

New Iberia Research Center

In 2000, NIRC received funding for supplies and renovations of facilities to accommodate chimpanzees. In 2002, NIRC received funding to "provide for housing an additional 80 to 100 adult chimpanzees which are being held at other institutions."

Year	Grant Amount	Grant Number	Grant Name	Grant Period
2000	$966,830	1CO6RR14491-01		
2002	$1,975,176	1C06RR016483-01	Expansion of NIH Chimpanzee Holding Facilities	Feb 1, 2002-Jan 31, 2006

Texas Biomedical Research Institute

For the project, "ABSL2 Chimpanzee Facility Improvement," SNPRC was awarded money from NIH from 2002-2004.

Year	Grant Amount	Grant Number
2002	$680,000	1G20RR016329-01A1
2003	$3,193	5P51RR013986-05, Sub-Project ID 7094
2004	$5,684	2P51RR013986-06, Sub-Project ID 0168

From 2003-2005, SNPRC received three grants for "Research Facilities Construction – Housing Facility for Chimpanzees"

Year	Grant Amount	Grant Number
2003	$31,929	5P51RR013986-05, Sub-Project ID 7189
2004	$55,275	2P51RR013986-06, Sub-Project ID 0170
2005	$68,048	5P51RR013986-07, Sub-Project ID 0170

From 2008-2010, SNPRC received additional grants for non-human primate facilities, which included chimpanzee facilities:

Year	Grant Amount	Grant Number	Grant Name	Grant Period
2008	$443,130	1G20RR022827-01A2	Renovation of Building 4 to Provide BSL-2 Housing for Infectious Disease Research	5/1/2008 – 4/30/2011
2009	$404,289	1G20RR025857-01	Improvement of Facilities for Nonhuman Primate Research	May 27, 2009 – May 26, 2011
2010	$466,835	1G20RR029751-01	Improvement of Nonhuman Primate Group Housing	5/15/2010 – 5/14/2012

Yerkes National Primate Research Center

From 2003-2010, YNPRC received large grants for "Support of Yerkes Regional Primate Research Center" from NIH. These grants contained sub-projects that funded chimpanzee research and facility renovations and development.

Year	Grant Amount	Grant Number	Grant Name
2003	$31,172	5P51RR000165-43, Sub-Project ID 6492	The Development of a Center for the Scientific Study of Chimpanzees
2004	$35,765	5P51RR000165-44, Sub-Project ID 0162	The Development of a Center for the Scientific Study of Chimpanzees
2005	$32,021	5P51RR000165-45, Sub-Project ID 0162	The Development of a Center for the Scientific Study of Chimpanzees
2006	$40,116	2P51RR000165-46, Sub-Project ID 0162	
2007	$47,397	5P51RR000165-47, Sub-Project ID 7417	
2008	$35,600	5P51RR000165-48, Sub-Project ID 5846	
2009	$54,800	5P51RR000165-49, Sub-Project ID 8328	
2010	$54,827	5P51RR000165-50, Sub-Project ID 8226	

Appendix B

NIH Grants for Behavioral or Post-Mortem Research involving Chimpanzees

According to an NIH Research Portfolio Online Reporting Tools (RePORT)[23] database search, the NIH has provided significant funding for behavioral and post-mortem studies involving chimpanzees. Relevant grants are listed below.

Georgia State University

From 2004 through 2006, Georgia State was awarded $26,360 for a noninvasive behavioral research study involving chimpanzees and numerical cognitive tasks with food rewards.

Year	Grant Amount	Grant Number	Grant Name
2004	$8,528	5P01HD038051 06	Comparative Studies of Numerical Cognition in Children and Non Human Primates
2005	$8,785	5P01HD038051 07	
2006	$9,047	5P01HD038051 08	

From 2000 through 2007, $99,543 was awarded for a noninvasive behavioral research study involving chimpanzees and memory.

Year	Grant Amount	Grant Number	Grant Name
2000	$79,076	5P01HD038051 02	Comparative Studies of Primate Spatial Cognition and Memory
2004	$3,128	5P01HD038051 06	
2005	$3,222	5P01HD038051 07	
2006	$3,319	5P01HD038051 08	
2007	$10,798	5P01HD038051 09	

[23] RePort "provides access to reports, data, and analyses of NIH research activities, including information on NIH expenditures and the results of NIH supported research." Available at: http://report.nih.gov/.

Emory University (location of the Yerkes National Primate Research Center)
From 2004 through 2011, behavioral researchers at Yerkes were awarded $184,976 to study how chimpanzees learn from social interactions.

Year	Grant Amount	Grant Number	Grant Name
2004	$35,765	5P51RR000165 44	Social Learning and Culture in Chimpanzees
2008	$28,536	5P51RR000165 48	
2009	$43,907	5P51RR000165 49	
2010	$43,862	5P51RR000165 50	
2011	$32,906	5P51RR000165 51	

From 2007 through 2010, Emory University was awarded $184,724 to study post-mortem chimpanzee brain tissues to identify differences in gene and protein expression.

Year	Grant Amount	Grant Number	Grant Name
2007	$39,497	5P51RR000165 47	Interrogating the Genome to Uncover Human Specializations of Brain & Cognition
2008	$35,600	5P51RR000165 48	
2009	$54,800	5P51RR000165 49	
2010	$54,827	5P51RR000165 50	

Appendix C

NIH Housing & Maintenance Type Grants for Laboratories Housing Chimpanzees

According to an NIH Research Portfolio Online Reporting Tools (RePORT)[24] database search and Freedom of Information Act requests by NEAVS, the NIH has provided millions of dollars for projects related to the care, maintenance, and housing of federally-owned or supported chimpanzees in U.S. laboratories. Relevant grants are listed below.

The Keeling Center for Comparative Medicine and Research (location of the MD Anderson Cancer Center):

From 2003 through 2010, the NIH awarded significant funding to MD Anderson for the care and maintenance of chimpanzee populations and facilities, which included veterinary care and enrichment studies.

Similarly, the active 2012 grant goals focus on care and maintenance.

Grant Number	Grant Name	Grant Year	Grant Amount
2U24RR015090-04	Establishment/Maintenance of Biomedical Research Colony	FY 2003	$3,512,504
		FY 2004	$3,741,619
2U24RR015090-05		FY 2005	$4,375,828
2U24RR015090-06A1	Chimpanzee Biomedical Research Resource	FY 2006	$2,984,231
		FY 2007	$2,996,721
		FY 2009	$3,235,868
		FY 2009	$3,325,760
		FY 2010	$2,971,095
8U42OD011197-12	Chimpanzee Research Resource	FY 2012	$2,064,160

[24] RePort "provides access to reports, data, and analyses of NIH research activities, including information on NIH expenditures and the results of NIH supported research." Available at: http://report.nih.gov/.

Texas Biomedical Research Institute:

Year	Grant Amount	Grant Number	Grant Name
2012	$7,420,767 (funding strictly for chimpanzees unknown)	8P51OD011133-14	The Southwest National Primate Research Center

NIRC to Texas Biomedical Research Institute

In 2012 funding was granted to Texas Biomedical Research Institute to maintain a population of chimpanzees and coordinate the transfer of 111 chimpanzees from NIRC. The budget included funds for husbandry, behavioral management, socialization, enrichment, and staff training among other things.

Year	Grant Amount	Grant Number	Grant Name
2012	$2,681,884	3U42OD011184-02S2	NIH-Owned Chimpanzee Research Resource at the SNPRC
2012	$142,850	3U42OD011184-02S1	NIH-Owned Chimpanzee Research Resource at the SNPRC
2012	$523,117	8U42OD011184-02	NIH-Owned Chimpanzee Research Resource at the SNPRC

APF to Texas Biomedical Research Institute

From 2011-2015, funding was planned for the transfer of chimpanzees from the Alamogordo Primate Facility to Texas Biomedical Research Institute and maintenance of the chimpanzees.

Year	Grant Amount	Grant Number	Grant Name
2011	$471,185	1U42RR032577-01	NIH-Owned Chimpanzee Research Resource at the SNPRC
2012	$4,672,829		
2013	$4,362,077		
2014	$4,599,256		
2015	$5,012,106		

University of Louisiana at Lafayette (location of the New Iberia Research Center)

The active grant below is a continuation of a project started in 2000. One of four aims of the grant is to “maintain CBRP chimpanzees in a setting which promotes species appropriate social

interactions and, to establish and implement guidelines for managing access to research chimpanzees based on age and health status."

Year	Grant Amount	Grant Number	Grant Name	Grant Period
2012	$1,858,987	9U42OD014838-11	Chimpanzee Biomedical Research Program Limited Competition	Sept 16, 2012-Sept 15, 2013

Charles River Laboratories INTNTL, INC.

The active grant below was awarded to Charles River, a contractor for the NIH. The grant deems the "contractor shall operate and maintain the associated long term care facility, as well as provide overall facility operations and maintenance."

Year	Grant Amount	Grant Number	Grant Name
2012	$4,037,874	268201100065C-2-0-1	Operation and Maintenance of a Chimpanzee Facility

Yerkes National Primate Research Center

While not limited solely to chimpanzees, the following grant awarded to Yerkes was intended to provide "housing for nonhuman primate breeding colonies and facilities for studies of the social behavior and biology of semi-free ranging nonhuman primates." The grant acknowledged it would adhere to the federal breeding moratorium on chimpanzees. Funds were intended to "provide regional and national resources for data, consultative expertise, biological and genetic material, and specialized facilities and equipment which are useful in supporting primate related research."

Year	Grant Amount	Grant Number	Grant Name
2008-2009	unknown	P51 RR 00165	Support of the Yerkes National Primate Research Center

Appendix D

Primadomes purchased by the NIH from Brandes Brothers Constructors, Inc.

The Keeling Center for Comparative Medicine and Research (location of the MD Anderson Cancer Center):

New Iberia Research Center:

Texas Biomedical Research Institute: