F.M. KIRBY FOUNDATION SOLICITATION EVALUATION FORM

DATE: November 14, 2018 **REQUEST DATE:** October 22, 2018
Last grant acknowledgement: Yes
Program Area: Health

APPLICANT:
Memorial Sloan-Kettering Cancer Center
8th Floor
885 Second Avenue
New York, NY 10017

CONTACT: Ms. Meg Dooley, Vice President and Director of Development
PHONE: 646-227-2274
PAYEE OTHER THAN ADDRESSEE:

AMOUNT REQUESTED: $200,000 **NATURE OF REQUEST:** Toward the Brain Tumor Research Grants Program

GRANT HISTORY

LAST GRANT DATE: 9/14/2015 **LAST GRANT AMOUNT:** $175,000 **AFS DATE:** 3/29/2018

2010	$500,000	12/15/2010	Toward renewed support of the F.M. Kirby Foundation Brain Tumor Research Fund
2012	$400,000	4/29/2012	Toward renewed support of the F.M. Kirby Foundation Brain Tumor Research Fund
2013	$250,000	12/16/2013	Toward renewed support of the F.M. Kirby Foundation Brain Tumor Research Fund
2014	$200,000	4/14/2014	Toward renewed support of the F.M. Kirby Foundation Brain Tumor Research Fund
2015	$175,000	9/14/2015	Toward renewed support of the F.M. Kirby Foundation Brain Tumor Research Fund

No request received in 2017 or 2016. No request received in 2011 at FMFK direction.

DLK COMMENTS: See financial analysis. It would be useful if they submitted a budget strictly for the Brain Tumor Center. The budget they submitted for 2018 is for the entire organization and the revenue and expense lines match the 2017 audit exactly, which seems suspect.

WHB COMMENTS: On October 29th, Ms. Thibodeau called me to make sure we had received the request and to personally inform me that she would be leaving MSKCC effective November 2nd and would be returning to her childhood home in Maine and starting a new position at Colby College.

Our continued support of the Brain Tumor Research (BTC) Grants Program is consistent with our funding of new investigators through some of our regrant organizations, but there is a unique difference here in that this BTC Grants program is a self-contained, in-house program that also serves to motivate recent post-grads to kick start their respective research interests thus serving as a precursor, hopefully, to a rewarding relationship with the NIH/NCI.

APPLICANT: Memorial Sloan-Kettering Cancer Center

This variation on a theme initiative has consistently realized significant leveraged support; our investment to date of $3.3M since 2007 has generated $56M in federal and other private funding – a ratio of just under $17:$1. To DLK's point regarding a budget strictly for the BTC, the BTC isn't a physical entity, it is more of an interdepartmental collaborative "funded" primarily in terms of in-kind personnel time. Intramural grants are "budgeted" with respect to an amount that the director of the BTC believes to be sufficient, in this case $1M per year, but those funds must be raised, hence the Research Fund. Other direct costs, such as conferences and travel are covered by the respective departments that comprise the Center.

I must say that the request narrative is quite good; it definitely reflects what we discussed at our site visit on August 8, 2018. Dooley's narrative is much more reflective of the process, applicants, and past recipient progress summaries. Notably, while this program in the past was more interdisciplinary, I believe it is becoming more parochial to reflect Parada's leadership and expertise. I am perfectly willing to see where this goes.

Given the bumps in the road we've experienced of late, I'm okay with a grant at the $150K mark and would suggest a 2019 target at the same level.

ECC COMMENTS: After our visit to MSKCC this summer, I think WHB and I both agree the BTC is in very competent hands. (This was particularly reaffirming, considering all the issues MSKCC experienced these past few months with Dr. Balsega stepping down, to know that BTC seems to be a more autonomous, self-sustaining department under Parada's leadership than ever before.) His own research, outlined briefly in this request, will ideally offer backing for a personalized medicine approach, providing direction and medicine recommendations for patients with the specific gene combinations being tested. My take is that cancer researchers have generally been functioning outside the widely-accepted scientific method of minimum exposure to variables in an effort to find faster results, and this approach simply returns to how research is "supposed" to be conducted. However, because it is a "novel" idea, it's been difficult to convince others in the field and generate funding.

I'm happy to see the relationship between the BTC and FMKF pick back up and glad that we were able to clarify that the lack of requests these past few years was due to a failure to communicate in-house on their part. In particular, to have any part in the success of Dr. Mellinghoff's discoveries regarding cell metabolism driving malignant transformation is noteworthy, as this concept is certainly revolutionary in terms of how future young investigators approach their research.

SDK COMMENTS: I am all for our continued support of brain tumor research, and while I miss the days of the relationship we had with Dr. Eric Holland, I recognize the positive site visit our team had this past summer at MSKCC. I also note the quality research publications, including "Nature Neuroscience," prevalent in the type of top-level work germinating here. That said, the on-and-off again relationship and lack of communication, then the ludicrous suggestion that they might ask for $2 million over two years, the fact that Ms. Thibodeau forgot to follow-up (or did not care to) with a basic response to WHB/DLK's inquiry before she left, then the less-than-complete response that Ms. Dooley sends along (poor policy not to have a budget that can be shared with an institutional funder), and finally the "noise" that has occurred at MSKCC this year behind the Dr. Baselga story all suggests to me that MSKCC is not a tier-1 relationship at this stage. I think I should recommend $100k this year as we reengage our support. Maybe target $125k next year; we can discuss any of this that WHB cares to. **(WHB: I have no problem with SDK's recommendation; however, it's a shame that Dr. Parada and the BTC Grants Program become the unintended victims of the MSKCC development staff's shortcomings.)**

FM KIRBY FOUNDATION
Financial Statement Analysis

Grantee Name:	Memorial Sloan-Kettering Center	**Date:**	10/26/2018
Prepared By:	DLK		
Grant Request Amt.	$ 200,000	**Type of Financial Report Submitted**	Audit
Budgeted Amt.	$ 150,000	**Period Covered in Financial Report**	12/31/2017
Audit Firm	Ernst & Young LLP		
Opinion	Present fairly	**Date of Report Issuance**	3/29/2018
Basis of Acctg.	GAAP		

Current Ratio (Liquidity Ratio/Working Capital Ratio)	2.04	**Amount of Unrestricted Net Assets (Operating Reserve)**	**$ 4,630,974**

Note: A current ratio measures an organization's ability to pay short-term and long-term obligations. The higher the ratio, the more capable the organization is of paying its obligations. A ratio under 1 indicates that the organization's liabilities are greater than its assets.

Allocation of Functional Expenses	12/31/2017	**%**	Must Read Financial Statement Notes
A. Patient Care, Research, Educ.	$ 4,114,832.00	98%	Ideally program expenses should be at least 70% of total budget.
B. Management and General	$ 33,122.00	1%	
C. Fundraising	$ 65,074.00	2%	
D. Total Expenses	$ 4,213,028.00	100%	
	(in thousands)		

Comments/ Notes:

Budget - A very top-level budget was provided for MSKCC as a whole. The 2018 budget projects revenues of $4.4B and expenses of $4.2B for a net operating surplus of $240M. **The 2018 budget figures are the exact same figures as the 2017 Audit**?! If a budget for the Brain Tumor Center exists, that would be more pertinent, especially with a year-over-year comparison.

Audit - The 2017 audit shows an operating surplus of $240M and an increase in total unrestricted net assets of $285M as of December 31. Total operating revenues were up $472M (12%), primarily in hospital care and services. Total operating expenses were up $422M (11%), with compensation up $204M (10%) and purchased supplies/services up $179M (14%). MSKCC had an increase in investment returns of $190M (639%)! MSKCC provided an estimated $1.3B in charity care and community benefit program service for 2017. The Institution had investments of $5.5B as of December 31, 2017, of which $955M were endowment related. LT debt increased by $171M due to the issuance of $294M of bonds in December 2017. A portion of the bonds were used to advance refund 2015 bonds. The remaining proceeds will be used to pay for ambulatory care expansion, equipment and the cost to issue the 2017 bonds. ** The financial statements do not include amounts related to research grants that have been awarded for which expenditures have not been incurred or cash has not been received. Those grant awards approximated $116M at December 31, 2017.

There were no red flags as a result of my review.

APPLICANT: Memorial Sloan-Kettering Cancer Center

DISPOSITION:

( ) Rejection

( ) Hold for review on/about:

(xx) Approval for: **$100,000**

(xx) Hold for Board Review

(xx) Insert Information: **Toward renewed support of the F.M. Kirby Foundation Brain Tumor Research Fund**

( ) Other:

Initials: AK Date: 11/15/18

Check #:_____ Date:_____

SITE VISIT REPORT

Report No: 36

Grantee:
Memorial Sloan-Kettering Cancer Center
21st Floor
417 E. 68th Street
New York, NY 10017

Program Area: Health
Most Recent Grant Amount and Date: $175,000.00 - 9/14/2015
Primary Contact: Ms. Meg Dooley, Director, Principal Gifts
Phone: 646-227-3523
Met With: Luis F. Parada, Ph.D., Director, Brain Tumor Center; Albert C. Foster Chair; American Cancer Society Research Professor; Meg Dooley, V.P. Development; and Katie Thibodeau, Director, Principal Gifts

Location: Same as above
Date Visited: August 8, 2018
F. M. Kirby Foundation Representative: William H. Byrnes, Jr., Vice President – Grants, and Erin Clifford, Communications and Program Associate

NOTE: We have omitted the matrix as we have done with many of our Tier 1 health grantees as such topics are more appropriate with key administrators.

Comments: Our visit took place in the recently opened Mortimer B. Zuckerman Research Center, part of Sloan Kettering's 17-year, $3.5 billion campaign that will position MSKCC to meet its most pressing future needs. This campaign has been extended twice since launching the original goal of $1B in 2001. At $3.5B, one would hope fundraising might take a breather, but that's doubtful!

The Zuckerman Research Center, also known as the ZRC, is a beautiful structure that houses MSK's programs in Cancer Biology and Genetics, Computational Biology, Immunology, Human Oncology and Pathogenesis, and the laboratories comprising its Molecular Pharmacology Program; it is also home to the Gerstner Sloan Kettering Graduate School of Biomedical Sciences.

Ms. Thibodeau met us in the lobby off of E 68th and escorted us to a conference room on the 17th floor right in the heart of the Gerstner Graduate School. Dr. Parada and Meg Dooley greeted us as we entered the room. Dooley shared that she had to leave in about 45 minutes, which was surprising considering how insistent she was to introduce Dr. Parada. Nevertheless, we sat down for what would be a very informative and impressive "presentation" by Parada.

Dr. Parada came to MSKCC in the summer of 2015 via the University of Texas Southwest Medical Center (UTSW) in Dallas, where he began generating genetically engineered mouse models (GEMMs) to study human disease with a specific focus on cancers of the nervous

system. He is a Developmental Biologist by training, received his doctorate from MIT, and is a member of the National Academy of Sciences. In his new role at MSKCC, he directs the Brain Tumor Center, in addition to leading his lab where he continues work in creating genetically engineered mouse models to study neurofibromatosis, brain tumors, cancer stem cells, and tumor progression. Dr. Parada has several significant NIH/NCI RO1 grants and has secured the financial backing of MSKCC to cover whatever gaps may arise to sustain the work of the BTC.

Parada's overarching goal for the BTC is to maximize PDX (patient derived xenografts) which are models of cancer where the tissue or cells from a patient's tumor are grafted/implanted into an immunodeficient or humanized mouse. This enables researchers to observe and treat the tumor(s) in real time and in 'in vivo' environments where the cancer grows/develops more naturally as opposed to artificial environments such as stem cell incubation in Petri dishes where specimens are exposed to too much oxygen. With PDX, Parada can replicate the disease and create quantitative data, as opposed to inferred data; he now has 100 mice growing glioblastomas that are identical to 20 human patients in his study.

Other notable aspects to this approach:

- Eliminates risk to drug resistance
- Serves as the gateway to personalized medicine and precision therapeutics
- Inference is minimized and quantitative data is maximized.

Parada explained correlative science, or inference-based science, is what science textbooks espouse. The PDX approach is a "return to how research is supposed to be conducted" as it affords minimum exposure to external variables. Because the NIH and NCI still view PDX as a "novel" idea, funding remains elusive, and so, such underwriting remains quite dependent on philanthropic and private investment.

Regarding the success of this research, Parada says he doesn't want to make false promises but that biomedical research is moving at a very fast pace, just as technology has over the past few decades. He believes that within the next five years, they will be able to set straight many misconceptions and poorly manipulated information about glioblastoma.

Parada explained/described all of this in an exquisitely simple manner. He was patient, down to earth, and is apparently highly regarded by his colleagues and students.

When we inquired about the funding gap and lack of communication, Parada took the heat. The gap resulted in the lack of BTC director, and he came in not knowing that the Intramural Grants Fund could be replenished; "I was parsimonious and slowed giving out grants as to make the funds last as long as possible." He was finally told otherwise and directed to spend the money and go back for more! (The 2018-2019 FMKF grant recipients are funded by leftover Kirby Funds earlier this year.) The Development office, and Meg Dooley in particular, dropped the ball here and should have provided more guidance.

Parada confirmed the FMKF funds have been the only funds supporting the BTC's small grants program. If at all possible, he would like to secure a minimum of $500K a year, though

$1M would be ideal for what has been a very successful incentive program; he knows it is highly unlikely that FMKF support will reach those plateaus again.

Katie Thibodeau is a nice addition to the team; she and Dooley will work in tandem with respect to the FMKF. Patty Pedersen at Yale Medical spoke quite well of Katie, who spent a decade at Yale, when WHB inquired about her a few months back.

All in all, a good visit and continued support, albeit at moderate levels, is warranted.