

Scientific Misconduct and Its Cover-Up

Diary of a Whistleblower

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*Scientific Misconduct and Its Cover-Up:
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Preface

The events and personalities described in the following account are real. Names and places were changed to protect the identity of the people who took part in this ugly drama, one that unfortunately, is duplicated in other academic institutions in the United States and elsewhere. By protecting the identity of the innocent and that of the whistleblower I am, regrettably, also protecting the identity of the guilty.

With the scarcity of research funds ever more acute, many other cases of misconduct in science are bound to occur. Since the majority of the research funds in the US are awarded to universities and research institutes by the government of the United States of America, the American public must be assured that its tax money does not fund research fraud. Whether or not the public will be privy to these cases depends, to a large extent, on the honesty, integrity and openness of the people conducting the investigations of cases of scientific misconduct. Similar to the church's long and relentless efforts to obscure cases of sexual abuse, many academic institutions have chosen to cover up their own cases of scientific misconduct. People within these institutions involved in these cover-ups should be held responsible for wrongdoing as much as those who commit the specific cases of scientific misconduct.

Another hurdle preventing full exposure of such cases is the high risk faced by whistleblowers everywhere. These courageous people routinely pay an extremely high price for daring to reveal wrongdoing in science and academe. It is unfortunate that most whistleblowers are standing alone against much greater forces in the institutions where fraud occurs. They cannot count on open support from their colleagues who fear retaliation and retributions. Although both federal and state laws exist that aim at protecting the whistleblower, only 30 states do have such laws. Both federal and state laws are weak, offering limited protection for the whistleblower. Many who blow the whistle still pay dearly for their actions and in cases where the law intervenes on behalf of the whistleblower this intervention mostly comes too late.

Neither scientists nor the public should blindly accept the claims of several people within the scientific community that cases of scientific misconduct are rare. No one really knows how many misconduct cases exist, since often they remain unreported or covered up by the very

people in charge of investigating and exposing them and punishing the perpetrators.

The events described in this book are the account of one such case of scientific misconduct and its cover-up. It is hoped that this account will make scientists, faculty members and students everywhere more aware of their duty to expose scientific misconduct, on one hand, and be aware of the inherent risks and pitfalls of becoming a whistleblower in science, on the other.

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Cast of Characters (in order of appearance)

Wendy S. Capegoat – The lab director of the Chairman of the Neuroscience Department at the Medical School, Jefferson University, Jefferson City, KS. Unbeknown to her she became the scapegoat for the misdeeds of her boss.

Dr. Lidia Quarry – Associate Professor, Neuroscience Department, Jefferson University Medical School, Jefferson City, KS; an outstanding young neuroscientist who was recruited by her chairman for her knowledge and experience in the field of Alzheimer’s disease research, only to be robbed of them by the person who recruited her.

Dr. Frank I. M. Moral – Chairman of the Neuroscience Department, Jefferson University Medical School, Jefferson City, KS, had a unique way to come up with research ideas and how to fund them.

Jeremy M. Artyr – A doctoral student at the Neuroscience Department, Jefferson University Medical School, Jefferson City, KS, who worked under the mentorship of three scientists. He found out that one of his mentors had claimed ownership of his intellectual property.

Dr. Christian C. Heat – Vice Chairman and later Chairman of the Neurology Department, Jefferson University Medical School, Jefferson City, KS, a physician who would do anything to assure his advancement, including scientific misconduct.

Dr. George O. M. Budsman – Ombudsman, Jefferson University Medical School, Jefferson City, KS, who, despite his many years at this position had never dealt with a case of scientific misconduct until...

Dr. Dean A. Verage – Dean (1982–1999), Jefferson University Medical School, Jefferson City, KS, a pathologist who was elected as the dean because of his mediocrity.

Dr. Harvey L. Powerhouse – Chairman (1976–1997), Neurology Department, Jefferson University Medical School, Jefferson City, KS, who wielded great influence over the future of Dean Verage and the future of his vice chair, Dr. Christian C. Heat.

Dr. Donald V. Icedean – Vice Dean for Academic Affairs, Jefferson University Medical School, Jefferson City, KS, an academician-turned-administrator who forgot his academic roots.

Dr. Bertha I. Clash – Associate Dean for Research, Jefferson University Medical School, Jefferson City, KS, has been an associate in Dr. Moral's Neuroscience Department. She gladly accepted her dean's assignment despite a clear conflict of interest.

Dr. Simon Wall – Professor, Anesthesiology Department, Jefferson University Medical School, Jefferson City, KS. A research scientist who discovered a whole new facet of science he was not aware existed.

Dr. David O.K. Yesmam – Associate Provost, Jefferson University, Jefferson City, KS, a “yes man” of his attractive female boss.

Dr. Barry A. L. Truist – Chairman (1982–2000), Anesthesiology Department, Jefferson University Medical School, Jefferson City, KS, a gentle, caring man, a great educator and an exemplar for young physicians and who strongly believes in the goodness of mankind.

Dr. James V. Shepherd – President (1996–2003), Jefferson University, Jefferson City, KS, an academician and an excellent communicator who had brought to his position, what had seemed to be, a new and healthy spirit.

Dr. Caroline X. Pretty – Provost, Jefferson University, Jefferson City, KS, an attractive woman who cared more about her looks than her job as the highest academic officer at the university. In early 2003 she was selected as the President of Arkansas University. Eventually, she continued to work with Dr. Shepherd on some extracurricular issues.

Myron R. E. Porter – The science reporter for *The Jefferson City Times*, who was informed about a case of scientific misconduct at the university and through the “Freedom of Information Act”, managed to receive much of the information about the case directly from the university administration.

Dr. Nina Marshal – Vice president for Research, Jefferson University, Jefferson City, KS, a biologist par excellence who was lured to become a top administrator and left her lab bench for good.

Dr. Michael A. Walton – A junior physician, Director, Princeton Institute for Infectious Disease Research, Medicine Department, Jefferson University Medical School, Jefferson City, KS, who became another instrument in the hands of the administration in their retaliatory battle against the whistleblower.

Dr. Ming U. Meek – Professor, Neuroscience Department, Jefferson University Medical School, Jefferson City, KS, a meek and gentle researcher whom Dr. Moral loved to harass.

Dr. David S. Neaky – A candidate for a faculty position at the Neuroscience Department, Jefferson University Medical School, Jefferson City, KS, who played a crucial role in complicating things for the whistleblower.

Dr. Jonathan S. Nobb – Dean of the Medical School, Jefferson University, Jefferson City, KS, who replaced the retiring dean, Dr. Verage, in July, 1999, and gladly took over the campaign that intended to teach the whistleblower a lesson.

Allan U. Griever – Chairman, Faculty Grievance Committee, Medical School, Jefferson University, Jefferson City, KS.

Dr. Keath H. Wright – Professor, Neuroscience Department, Jefferson University Medical School, Jefferson City, KS, a long-time colleague and friend of Simon Wall, an honest, straight forward, no frills man and an extremely bright scientist. One of the three mentors of Jeremy M. Artyr.

Dr. Stewart P. Retender – Vice Chairman, Neuroscience Department, Jefferson University Medical School, Jefferson City, KS, a pompous anatomist who did not hesitate to bend the rules for his own personal benefits and who led a grievance campaign against the whistleblower.

Julie L. Swim – Assistant Program Director of the American Society of Neuroscientists.

Nora Burgen – Executive Director of the American Society of Neuroscientists.

James F. Edwin – President of the American Society of Neuroscientists, 1999–2000.

Dr. Lola I. Serve – Professor, Neuroscience Department and Associate Dean for Faculty Affairs, Jefferson University Medical School, Jefferson City, KS, a neuroscientist in Dr. Frank I.M. Moral's department who has become an administrator. She saw nothing wrong in ignoring her own conflict of interests in the service of her masters.

Dr. Gary A. Goodwill – Associate Professor, Bacteriology Department, Jefferson University Medical School, Jefferson City, KS, the only faculty member in the Medical School who was willing, openly, to support and encourage the whistleblower throughout his ordeal.

Dr. Tina Chancey – Professor, Pharmacology Department, Jefferson University Medical School, Jefferson City, KS, member, Faculty Grievance Committee.

Cornelia Shaw – Assistant to the Dean of the Medical School, Jefferson University, Jefferson City, KS.

Dr. Carla L. Pool – Chairperson (2000- present), Anesthesiology department, Jefferson University Medical School, Jefferson City, KS, a personal friend of the dean, Dr. Nobb, who forced her candidacy for the chair position of the department against the will of its faculty members.

Dr. Derrek R. Church – President (2000–2001) of the American Society of Neuroscientists.

Wendy S. Capegoat

She stood in line at the post office window in the Medical School, holding a bundle of letters to be mailed. As she looked around, she loudly uttered words only she understood, completely oblivious to those in front and back of her. At the time, no one, including Wendy, knew that a glioma was growing in her brain. As it grew inside her skull, it began pressing on certain regions of her brain, evoking involuntary, indecipherable speech.

It would be four years before she would succumb to this endogenous invader that took over her cerebral cortex and then her life. From undecipherable speech to a wheel chair to a complete loss of cognition, Wendy's deterioration progressed to a point where she had to spend the last several months of her life in a sanatorium. As the days went by, her bright blue eyes became dimmer and her body motionless. She died in her mid-forties on a cold, gloomy December day in 1999.

A devoted wife and a loyal employee, Wendy agreed to follow her boss, Dr. Frank I. M. Moral, as he assumed the chairmanship of the Neuroscience Department at the Jefferson University (JU) Medical School, Jefferson City, KS. She directed his laboratory at the State University of New Mexico (SUNM) for years and it was the right move for her. Dr. Moral needed someone reliable to look after his new research projects. She would oversee a larger staff and would have greater responsibilities as the director of the department chair's laboratory. Her husband, James, a computer technician, would have no problem moving to Kansas, too, as he would quickly find a new job. The couple moved to Kansas in the summer of 1987 when Wendy began her job as a Research Coordinator in the Neuroscience department at JU.

Lidia Quarry

Lidia Quarry, a brilliant and promising young assistant professor at Louisiana State University (LSU), was scanning the dozens of rows of poster exhibits at the Annual Meeting of the American Society of Neuroscientists that took place at the convention center in New Orleans, Louisiana, in November 1988.

After completing her postdoctoral training, performing research in one of the leading research laboratories on Alzheimer's disease in Ithaca, New York, Lidia had just accepted a faculty position at LSU. Others had tried to recruit her, including Dr. Frank I. M. Moral, who a year earlier assumed a departmental chairmanship at JU. However, she decided to follow her husband, a psychologist, who became a partner in an established clinic in Baton Rouge, LA, and thus, she joined the faculty at LSU.

Lidia received her elementary education in Pakistan and then was sent to England. She graduated from high school at age 16 and by the age when most people are still in college, she had already received her Ph.D. from Cambridge University.

As she was walking from one poster to the next, stopping to ask questions or to exchange ideas with their presenters, she felt a tap on her shoulder. Turning around she found herself facing Frank I.M. Moral, who had a big smile on his bearded face.

“Hello Lidia, how are you?” said Frank. “Oh, thank you, Dr. Moral, I am fine,” said Lidia.

She thought to herself that Frank seemed to be awfully nice to her, considering that she had rejected the offer to join his department less than a year earlier. Soon she was to receive an explanation for this unexpected friendly gesture; Frank told her that his offer is still standing and that he is willing to make it even better for her to join him in Jefferson City.

Within eight months of that encounter with Dr. Moral, Lidia joined the faculty of the Neuroscience department at JU where she was given a large and well-equipped laboratory. As she already had two research grants by the time she left LSU, she had no difficulty attracting two excellent technicians to work under her, several graduate students and a postdoctoral fellow.

Lidia was well on her way to prominence as a researcher in the field of Alzheimer's disease.

Dr. Frank I. M. Moral

A graduate of Harvard University, Frank I. M. Moral has set his goals high. Although, a bit unusual for a scientist to do all his graduate work (master, doctoral and postdoctoral) in one institution, Frank completed it in five years and immediately landed his first academic position as an assistant professor at the State University of New Mexico (SUNM). About a decade later he was promoted to the rank of full professor at the Neuroscience Department there. Four years later, his big opportunity emerged with the resignation of the department's chair as Frank was appointed acting chairman.

Shortly thereafter, his colleagues in the department began to notice certain behavioral traits they had not noticed before. He became short-tempered, raising his voice in bursts of anger either in the presence of several faculty members or at one-on-one encounters. In several instances faculty members caught him contradicting previous statements he made, while in others he was caught lying. These behavioral oddities became more frequent as the time to select a new chairperson for the department approached.

Frank was one of the candidates for this position, an opportunity he had been looking and thriving for since he had joined the department. He had done everything he could to position himself as the top candidate for the job.

Despite administrative duties as an acting chairman, Frank had managed to assemble an impressive list of peer-reviewed publications, one of the key standards by which a scientist's stature is measured. A multi-year research grant from a French research foundation greatly enhanced Frank's chances to be chosen for his dream position, not to mention the two years he had served as acting chair. The search committee surely would take all these factors into consideration when the final decision is made. His anger outbursts would be understandable. After all, the pressure to publish and to receive funding for his research projects had been great and losing one's temper once in a while goes with the territory.

As it happened, the members of the search committee did not understand; they selected an "unknown" from Arizona. The committee members were greatly influenced by interviews they conducted with

several faculty members in Frank’s department. All those who were interviewed voiced their grave concerns about Dr. Moral’s tendency to “bend the truth” and his vindictiveness against people who disagreed with him. They unanimously voiced their objection to Moral’s candidacy.

Of course, following his defeat, Dr. Moral could not stand the idea of staying at SUNM as a regular faculty member or, for that matter, anywhere else. Once he tasted the taste of the power that comes with being a department chairman, nothing less would do. He had to find a chair position somewhere else. Frank hated the thought of moving away from New Mexico, nevertheless, he would not hesitate to move his home and family to another state given that a departmental chairmanship is at hand, even if it meant joining an obscure, lower-tier, university.

Searching the ‘Positions Open’ ad section in *Science*, one of the most prestigious scientific journals in the world, one particular ad caught his eye:

**CHAIRPERSON
NEUROSCIENCE DEPARTMENT
MEDICAL SCHOOL
JEFFERSON UNIVERSITY
JEFFERSON CITY, KANSAS**

The Jefferson University is searching for candidates to chair the Neuroscience Department at the Medical School. The successful applicant should have an earned doctorate or equivalent degree. Administrative experience and strong academic record demonstrating commitment to excellence in teaching and research is required. Must also demonstrate interpersonal and leadership skills. Screening will begin immediately and will continue until the position is filled.

Dr. Frank I.M. Moral applied for this position and eventually became the successful candidate. Seventeen years later, he is still the chairman of the Neuroscience Department at the medical school of JU.

Jeremy M. Artyr

Jeremy had dreamed of becoming a doctor. Being married to a physician had been a strong incentive to pursue such a career line. In 1992 he applied to the medical school at JU, but was not accepted.

As an alternative, Jeremy chose to do what many other students, when snubbed by the admission committee do, apply to the graduate school, obtain a Master degree in two years and then re-apply for medical school with a much better chance of being accepted.

The Neuroscience Department in the Medical School of JU has traditionally produced most of the graduates who later became medical students. Jeremy met with several faculty members in the department, including Dr. Lidia Quarry, Dr. Frank I. M. Moral and Dr. Keath H. Wright.

Jeremy was impressed with and excited about the scientific project that Dr. Quarry suggested. She had been working at the time on an animal model of Alzheimer's disease and was looking for ways to develop a stem cell line, which originates from the diseased animal itself, to be implanted in the affected brain regions. The idea was that such stem cells would begin to divide and take over for the dying Alzheimer cells. Additional expertise was required in both physiology and microscopy to carry out this ambitious project since such stem cells had to be identified both morphologically and functionally before and after their conversion.

Dr. Quarry reiterated to Jeremy that such a project could not be completed in 18 to 24 months, and that he should consider applying for a Doctoral rather than a Masters degree in the department, Additionally, he should be ready to invest 36 to 48 months to complete his doctorate.

Jeremy wanted to have some time to consider his options. His enthusiasm about the project and the encouragement of his family made his decision easier; medical school could wait for four years while he delved into one of the most intriguing and mysterious brain disorders to inflict the human race.

Soon after their first meeting, Jeremy told Dr. Quarry that he had decided to pursue his Ph.D. degree, working on his thesis in her laboratory under her mentorship. Together they went to meet Dr. Keath H. Wright, a full professor and a real genius who had been the most

underrated scientist in the medical school. He agreed to mentor Jeremy on the physiology part of the project.

Jeremy and Dr. Quarry later met with Dr. Frank I.M. Moral who tightly controls the microscopy facilities of the department.

At the end of the day, everything was set for Jeremy to begin his exciting journey into the secrets of the debilitating affliction known as Alzheimer's disease.

The only thing left to do to complete the process of his becoming a graduate student in the Neuroscience Department was to select two additional members for his thesis committee. Dr. Quarry suggested a colleague of hers in the Anesthesiology Department, while Dr. Moral suggested Dr. Christian C. Heat from the Neurology Department. Both gladly agreed to serve on Jeremy's thesis committee.

The Whistleblower (Dr. W)

As Dr. W. was sitting in his small, cramped office, engrossed in statistical calculations of his latest experiments, the telephone on his desk rang. He picked up the receiver and said: "Good morning." He heard Lidia's voice with her slight foreign accent: "May I come to see you? I must show you something."

Dr. W. and Lidia had known each other for a decade and had mutual research interests. Back in 1988, Frank I. M. Moral asked him to interview Lidia for an opening in the Neuroscience Department. As an Associate in Moral's department, Dr. W. interviewed many of the new candidates, as Frank trusted and relied on his judgment, including his strong recommendation that Lidia be hired for the open position.

As Lidia assumed that position after her short stint at LSU, Dr. W. was proud to see her flourishing and succeeding beyond all expectations. She had asked him, and he always agreed, to serve on thesis committees of her graduate students.

Several minutes after her telephone call, she stood at his open office door, her dark eyes moist and her voice trembling.

"May I close the door behind me?" she asked. "Sure, come in" he said, pointing to an empty chair.

Sitting down she handed him a folder containing a 30-page-thick paper file and said: "Look! Moral submitted a grant proposal based on my work and it got funded. He never told me about it or asked me to join him. He stole my research and used my ideas."

By now she was sobbing.

Two names appeared at the top of the first page of the grant proposal Lidia handed him, Frank I. M. Moral, Ph.D., and Christian C. Heat, M.D. The latter, a neurologist and Vice Chairman of the Neurology Department, had had established scientific and administrative collaborations with Dr. Moral for several years.

Trying to calm her down as he scanned through the pages of a small print, single-spaced text, Dr. W. asked softly:

"What do you mean by saying that Moral stole your research?" Her reply was almost a shout: "He did! Look at the work that is cited, the

preliminary experiments, the ideas for future experiments, all of these are mine.”

There was desperation in her voice and a painful look on her face. Dr. W. knew that somehow he must help her find the strength to fight the dreadful feeling of complete despair.

Lidia believed that she was robbed of her career and her intellectual property. She was convinced that the person who recruited her, the one who for several years was her greatest supporter and cheerleader, had done it.

“I need some time to look at the proposal. I need some time to think and consider your options, Lidia. I will call you tomorrow”. Dr. W. said to her.

She stood up with her shoulders slumped and slowly stepped out of his office, leaving the folder with him.

Dr. W. had never encountered, until that moment, a wrong doing in science of such proportion.

Having a father who was a police criminologist and a mother who was a teacher for many decades, he grew up watching and experiencing the pursuit of justice and the punishment of the wrongdoer. Police stories, common around the dinner table, always ended with the moral that the crime does not pay. His affinity to science undoubtedly came from his father. For him, science had been the realization of the purest way to pursue the truth.

Dr. W. sat quietly for several minutes, trying to digest the potentially scandalous revelation that was lying in front of him. Would Frank Moral really do something so blatant? At his position, what had he to gain? If Lidia’s accusations were true, Frank Moral would have so much more to lose than to gain. The whole situation seemed unimaginable.

Dr. W. began reading the proposal. It was submitted in September 1996 to a local foundation of one of the hospitals in Jefferson City. The requested amount was almost \$100,000 and was approved for funding by the foundation eight months after its submission. A letter from the foundation was attached, addressed to Christian C. Heat and Frank I. M. Moral, informing them that the trustees of the foundation approved this grant award to them. Following several pages of biographical sketches of the two principal investigators and that of a graduate student who would

perform the majority of the lab work, the body of the proposal itself began with an introduction.

He read through the **Introduction** section followed by the **Specific Aims** of the study and then, as he was reading the **Background and Significance** section, a strange sensation of familiarity fell over him. It was as if he had already read this very text before. Page after page, there was text that he knew had been written neither by Frank I. M. Moral nor by Christian C. Heat.

Dr. W. removed Jeremy M. Artyr's doctoral thesis from a shelf in his office, opened it at the **Background** section and begun comparing its text with the text of Moral and Heat's grant proposal. Word by word, line after line, paragraph after paragraph, page after page, the grant proposal's text was identical to the text of Artyr's thesis. Nowhere to be found in the grant proposal was a reference to Artyr's thesis.

W. was sitting motionless in his chair for a very long time. The unexpected, shocking revelation that the chairmen of two major departments in his medical school had engaged in plagiarizing from a doctoral thesis of their own student kept him numb, unable to think straight and unsure what, if any, one should do about it.

Guidelines and Definitions

Like all academic institutions receiving federal funds, JU is required to have many rules according to which its academic and scientific affairs are managed and controlled. These rules are compiled into one book, the *Blue Book*. Another document that has been used at the medical school and was borrowed from a similar document at Harvard University is entitled “Guidelines and Reference Material for the Ethical Conduct and Reporting of Scientific Research and Procedures for Dealing with Allegations of Scientific Misconduct.” The preface of this document reads:

“Academic institutions are unique among institutions in that their principal “products” are the search of the truth and its dissemination. It thus follows that all university activities be characterized by honesty and integrity and that compromising these traits cannot be tolerated. The trust and support of the community depend on the continued demonstration by the institution that its activities are truthful and honest, that its “products” are reliable, and that it has in place an effective and fair mechanism for promoting ethical behavior and for dealing with allegations of unethical conduct. All members of the academic community are expected to maintain the highest possible ethical standards for the conduct and reporting of research and to communicate them, both directly and by example, to all those who come under their influence.”

The “Guidelines” were developed by several leading universities and adopted by the Medical School of JU. Misconduct in science is defined by the “Guidelines” in three terms as follows:

1. *Plagiarism – using others’ data (or ideas) without acknowledging the source;*
2. *Fabrication – inventing or counterfeiting data;*
3. *Falsification – altering data.*

The National Academy of Sciences (NAS) also published a booklet entitled “On Being a Scientist; Responsible Conduct in Research”¹ in which the definition of two out of the three misconduct terms is similar, however, the definition of “plagiarism” is somewhat different:

“Plagiarism – using the ideas or words of another person without giving appropriate credit.”

Thus, JU guidelines do not define “*using the words of others*” as plagiarism. Nevertheless, these guidelines also apply to the preparation of grant applications and it specifically states that honesty and integrity in applying for research funds represent the only acceptable approach.

The second part of the guidelines lists the procedures for dealing with allegations of unethical conduct that should be examined in four successive stages, each of which will be carried out expeditiously and in credible manner, with emphasis on due process, protection of individual rights and maintenance of confidentiality. The first (Preliminary) and the second stage (Initial) comprise the Phase of Inquiry and the third (Formal) and fourth stage (Resolution) constitutes the Phase of Investigation.

In the Preliminary Stage, allegations of misconduct may be made to the Ombudsman of the medical school either orally or in writing.

Notes

- ¹ On Being a Scientist – Responsible Conduct in Research. Committee on Science, Engineering and Public Policy, National Academy of Sciences, National Academy of Engineering, Institute of Medicine. National Academy Press, Washington, D.C. 1995