

Editorial

'Il Destino della Scienza'

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A tragic Opera in three acts

Libretto by Giuseppe Linguine (???–1698), originally translated by Lloyd Fricker (1993), modified and adapted by Gianuario Melino (???).

Cast (in order of vocal appearance):

Alfredo, a professor	Baritone
Marco, a postdoc	Tenor
Francesca, a senior assistant	Alto
Margherita, the senior secretary	Soprano
Erminio, another professor	Bass
Michele, Scientific Review Administrator	Bass
Nicolette, another secretary	Soprano
Daniele, another postdoc	Tenor
Figaro, Alfredo's son	Soprano
Julietta, Alfredo's daughter	Alto
Tommaso Moro, EU Great Scientific Manager	Bass
Second Reviewer	Baritone
Ubaldo, Institute Scientific Judge	Bass
(God, Goddesses and Reviewers)	

Act I – Scene 1, Alfredo's Office: The curtain rises on Alfredo in his office; nearby, his postdocs, Marco and Francesca, are hard at work on a manuscript that has been rejected by Nature. In a dramatic opening aria, the researchers lament the fact that the journal reviewers found their manuscript unexciting ('*Il reviewers sono molto stupidi*'). Their song describes how optimism is endemic in science, and so is the claim that today's incongruity, ignorance, and deficits represent an investment in the future knowledge. However, experiments and data must always be translated into scientific concepts and these ideas can never cover every contingency, or match the ingenuity or a perversion of the endless inventive human mind. And so, often these ideas crash again the reality of meeting the practical publication level. The aria ends with the famous motif ('*Teresa, Teresa ... a morte*'). Margherita, the important senior secretary, delivers a box of submitted manuscripts that Alfredo, as an Editor of the scientific journal '*La Ricerca di Base*' (apparently founded by G Galilei as *La Lince*), must evaluate. Alfredo opens it, finding only five manuscripts to read, and rejoices ('*Il lighto loado*'). Their happiness soon turns to sorrow, however, as Alfredo discovers a note indicating that he is to be the primary managing editor on an additional 18 papers that will arrive at a later stage

('*Il grande boxo di articoli*'). The four lament the twist of fate, Murphy's law, and the Peter Principle. Alfredo, grieved that he will have no time to spend with his lab group or family for the next 3 weeks, taken by the changes in translational science, departs sadly homeward bearing the box of manuscripts.

Scene 2, Later that evening at the central train station: As Alfredo is waiting to catch the evening train home, he reads the day's emails on his Blackberry. In the distance, he hears the voice of another scientist (Erminio) who laments the change from basic to translational research in *La Ricerca* ('*Il destino della Scienza*'). Alfredo follows the sorrowful voice and adds a rousing counterpoint to the chorus; he too echos the lament of his peer, the Direttori della Scienza dell' Universita'.

Act II – Scene 1, Alfredo's office (2 weeks later): Alfredo is still hard at work on the manuscript reviews, having completed only two. The University bureaucracy taking most of the time – providing only fringe financial support. He sings a sad aria: Michele, the Scientific Review Administrator, his boss Alisonne and his assistant Emma, wants the list of manuscripts that could make the cut by the next day ('*Il listo e' crappo*'). Margherita is desperately emailing the referees ('*Il reviewers sono molto lenti*'). At that moment, Nicolette enters bearing an envelope from La Natura-Publishing-Gruppo. Believing it contains yet another supplement, Alfredo tosses it onto a pile and searches for his place in the manuscript he was reading. Just then, Daniele enters with some important data that must be published immediately, before competitors beat them to it. They sing a dramatic duet ('*La pubblicazione o il scoop*') in which Alfredo regrets that he cannot help write the article as he must finish evaluating the large pile of manuscripts for *La Ricerca di Base* and also read 26 EU grant applications before the Bruxelles meeting next week. As Daniele leaves, Alfredo returns yet again to the manuscript, only to be interrupted by Margherita. She is distraught that she hasn't gotten any holiday in the 2 years she has been with Alfredo and her children are desperate, tired, and ill. He promises her a long break, explaining that he is waiting to hear if their latest manuscript has been accepted for publication in Nature ('*La pubblicazione Tabloida*'). After their duet, Margherita leaves and Alfredo returns once again to his work. A minute later, he jumps from his seat and snatches the envelope he had tossed hastily onto his desk, as he realizes suddenly that it is actually the long-awaited review statement from Nature ('*La posta junko e' il sheeto completo*'). Trembling, Alfredo tears open the envelope, then lets out a cry upon seeing the comments of the reviewer, who clearly does not share Alfredo's enthusiasm about the manuscript and thinks it more appropriate for a 'specialty' journal ('*Io raccomando l' Annale di Ricerca Improbabile!!!*'). He sings a moving aria lamenting the lack of sufficient funding for basic science and his own unfortunate lack of success with publication ('*Mio articolo e' finito*'). The aria ends with a variation of the famous motif ('*Teresa, Teresa ... a morte*'). Unable to concentrate any longer, Alfredo goes home.

Scene 2, Alfredo's home (later that night): Alfredo arrives home and finds his children, Figaro and Julietta, overjoyed that he has returned before they have gone to sleep. Their happiness is short-lived, however, as he confesses the cause of his surprise homecoming. There are not sympathetic to the fact that only a small number of people actually get their manuscript published in high-impact journals, and are dismayed that Alfredo's article was considered only 'excellent' and therefore not good enough ('*Papa e' un nincompoo*'). Disheartened, Alfredo sits at his desk and begins to read another application. Just as at work, however, he cannot read for more than a minute before being interrupted – now by his wife and children. After a couple of hours, Alfredo has nearly finished reading an entire page. Unfortunately, he falls asleep before reaching the next one.

Act III, At EU Headoffice in Bruxelles, home of the God and Goddesses of Science: The scene opens to reveal a large table surrounded by serious-looking men and women. Alfredo is among the mortals, who have been invited to Bruxelles to decide the fate of 137 grants from Universities and Institutes. At the side of the room are the Gods and Goddesses of EU: the program officers of various agencies, dressed in white tunics. They are feeding from a large tray of grapes, and drinking decaf coffee. Tommaso Moro, the new Great Scientific EU Manager, begins the meeting with an hour-long aria about the change in the review process and the need for confidentiality ('*Non asko, no tello*'). The first Institute to be reviewed is one for which Alfredo was the primary reviewer. Alfredo likes this Institute, which describes an imaginative series of experiments concerning an important but little-studied biological question ('*Se succede, e' Nobel Prizo*'). Furthermore, all its key points are presented in a single page: the limit of Alfredo's attention span, given all the interruptions he must tolerate. His enthusiasm is countered by another reviewer ('*Non hypotheisiso, non preliminaro dato*') turning in what has come to be the most famous aria of the opera ('*Non traslazionale, non fundo*'). Other reviewers join in with comments on the applicant's absence of translational aspects, absence of University inputs and the absence of feasibility studies, and the general observation that the problem must not be very important or others would already be working on it. Finally, Ubaldo, the Institute Scientific Judge rises and joins in the singing ('*Givmi il file disco*'). Everybody in the room then joins in, except for the Gods and Goddesses – who have moved from the grapes to a large table filled with melon balls, which they eat with toothpicks – and a waiter restocking the toothpicks. When it becomes clear that no new comments have been made for at least 45 min, a vote is finally called for, and, in a dramatic moment, Alfredo sings out ('*1.0*'), while the other reviewers vote for a worse score ('*Il Istituto e'*

non-translazionale, e non-competitivo'). They arrive at a consensus score of 2.0. During the aria, the waiter becomes noticeably distressed. He consumes vast quantities of coffee and finally collapses as the application's score is announced. In a surprise twist, one of the EU Goddesses reveals that the waiter is in fact Erminio, the University director of the failed Institute grant. Although fatally poisoned by the bad coffee, Erminio sings a moving aria reflecting on the weakness of the current Institute review system ('*Il reviewers e' screwed-uppo*') and the negative twist toward translational science with a variation aria ('*L'Universita' e' morta; l'Istituto e' morto*') followed by the now famous song ('*Il destino della Scienza*'). The opera ends with the reviewers placing Erminio's lifeless body in the boxes that held the discarded Institute reviews and covering him with glossy photos of his data. In the distance, the University director's chorus sings ('*Silvio, Silvio non ci far diventar il C.N.R.*') [Tony, Tony don't let us become like the Centro Nazionale delle Ricerche]. As the curtain is lowered, one reviewer comments that it's a good thing the institute wasn't given a really bad score, or who knows what the director would have done ('*Il Unabombo*').

Note

Names and facts do not refer to real events. Any coincidence is not deliberate.

Additional information

The original version with photos, plus other humorous material, can be found in '*How to write a REALLY bad grant application (and other helpful advice for scientists)*', by L Fricker, Authorhouse, ISBN 1420802623 (www.authorhouse.com/BookStore/ItemDetail~bookid~27713.aspx).

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About the authors

Giuseppe Linguine, Casaleto Veneto ???–1698, school of Galileo Galilei, was a scientist of I Lincei; made the first single photon counter using the growth of onion's roots.

Gianuario Melino, 1987–???, was Editor of Cell Death & Resurrection, a journal now extinguished; discovered the resurrection of cells.

Lloyd Fricker is professor of Molecular Pharmacology, Albert Einstein College of Medicine, NY. 'This person actually exists!'