



OPEN ACCESS

'The industry must be inconspicuous': Japan Tobacco's corruption of science and health policy via the Smoking Research Foundation

Kaori Iida,¹ Robert N Proctor²

► Additional material is published online only. To view please visit the journal online (<http://dx.doi.org/10.1136/tobaccocontrol-2017-053971>).

¹Department of Evolutionary Studies of Biosystems, SOKENDAI (The Graduate University for Advanced Studies), Hayama, Japan
²Department of History, Stanford University, Stanford, California, USA

Correspondence to

Kaori Iida, Department of Evolutionary Studies of Biosystems, SOKENDAI (The Graduate University for Advanced Studies), Hayama, Kanagawa 240-0193, Japan; iida_kaori@soken.ac.jp

Received 31 July 2017

Revised 15 December 2017

Accepted 19 December 2017

ABSTRACT

Objective To investigate how and why Japan Tobacco, Inc. (JT) in 1986 established the Smoking Research Foundation (SRF), a research-funding institution, and to explore the extent to which SRF has influenced science and health policy in Japan.

Methods We analysed documents in the Truth Tobacco Industry Documents archive, along with recent Japanese litigation documents and published documents.

Results JT's effort to combat effective tobacco control was strengthened in the mid-1980s, following privatisation of the company. While remaining under the protection of Japan's Ministry of Finance, the semiprivatised company lost its 'access to politicians', opening up a perceived need for collaboration with global cigarette makers. One solution, arrived at through clandestine planning with American companies, was to establish a third-party organisation, SRF, with the hope of capturing scientific and medical authority for the industry. Guarded by powerful people in government and academia, SRF was launched with the covert goal of influencing tobacco policy both inside and outside Japan. Scholars funded by SRF have participated in international conferences, national advisory committees and tobacco litigation, in most instances helping the industry to maintain a favourable climate for the continued sale of cigarettes.

Conclusions Contrary to industry claims, SRF was never meant to be independent or neutral. With active support from foreign cigarette manufacturers, SRF represents the expansion into Asia of the denialist campaign that began in the USA in 1953.

INTRODUCTION

In September 2014, the Tokyo High Court upheld Japan Tobacco's (JT) view that there is no scientific consensus that secondhand smoke causes cancer and other life-threatening maladies. The court based this decision on articles published by industry-financed researchers (eg, James Enstrom and Geoffrey Kabat), articles already discredited outside Japan.¹⁻⁴ As of 20 September 2017, JT's website states that 'a statistical relation between exposure to environmental tobacco smoke (ETS) and the increase of disease incidence in non-smokers has not been proven', referencing the discredited Enstrom and Kabat study and a controversial IARC study from 1998.^{2 5-7} In May of 2016, when the Japanese Ministry of Health estimated the number of deaths in Japan from exposure to secondhand smoke at 15 000 per year, JT responded with the industry mantra: we need more research, we need

to promote *bun-en* ("separate-smoking" spaces) and we need to improve "smokers' manners" to "realise a harmonious society".⁸

JT has long worked to characterise public smoking as a problem not of public health, but rather of civility, tolerance and manners.⁹⁻¹¹ This effort has been remarkably successful. While Japan has seen some limits on public smoking in recent years (especially after the 2002 Health Promotion Act^{12 13}), the nation's tobacco control remains weak by international standards. As of September 2017, only two prefectures (Kanagawa and Hyogo) and one city (Bibai in Hokkaido) have adopted ordinances to prevent 'passive smoking', and these are not strong policies.^{11 14-18} In the 2017 MPOWER measures by the WHO, Japan received the lowest score on multiple components, including 'P' ('Protect people from tobacco smoke').¹⁹

The success of Japanese cigarette makers in blocking effective tobacco control must be understood as a result of the industry's capture of large portions of the Japanese medical and scientific establishment. Here we show that the main instrument deployed for that purpose has been the Smoking Research Foundation (SRF; 喫煙科学研究財団), established under protection of the Japanese Ministry of Finance (MOF) in 1986.

According to SRF's first annual report, its purpose was to subsidise 'scientific researches on smoking... and thereby contribute to the deliberation of national policies regarding the tobacco industry'.²⁰ As explained in the subscription list detailing initial sponsors (*shutsuen kigyō*), JT's contribution was nearly 90% of the total 1130 million yen, far exceeding contributions from all other sponsors, including the Cancer Institute of the Japanese Foundation for Cancer Research, Japan's oldest cancer research facility.²⁰ Numerous tobacco-related entities also contributed, including trucking companies, growers' and retailers' associations, manufacturers of flavourants and filter materials and firms from the chemical, pharmaceutical and paper industries.²⁰ JT provided an additional 300 million yen for research grants, with comparable contributions ever since.^{20 21}

SRF remains active in Japan and still funds 'smoking and health' (*kitsuen to kenkō*) research: 387 million yen in fiscal year 2015, for example.²² While JT has been emphasising SRF's 'independence and neutrality',²³ critics have questioned its role in defending cigarettes.^{9 11 24} SRF scholars are known to have served as members of the Tobacco Business Council (TBC) and as expert witnesses for the defense in cigarette litigation.^{25 26} We also know



► <http://dx.doi.org/10.1136/tobaccocontrol-2017-054148>



To cite: Iida K, Proctor RN. *Tob Control* Epub ahead of print: [please include Day Month Year]. doi:10.1136/tobaccocontrol-2017-053971

from internal documents that JT sent SRF researchers and (at least planned to send) money (2–3 million yen) to influence the Sixth World Conference on Smoking and Health in Tokyo in 1987.^{25 27} The Japanese politician Shigefumi Matsuzawa in 2012 characterised SRF as ‘a think tank of JT, by JT, and for JT’.²⁸ Japan’s Society for Tobacco Control (*kin-en gakkai*) has publicly criticised SRF and called for its dissolution.²⁹ Such critical voices are rare, however, because few details of its origin and influence have been published.

METHODS

We searched the Truth Tobacco Industry Documents archive (<https://www.industrydocumentslibrary.ucsf.edu/tobacco/>) for documents related to the Smoking Research Foundation, using terms such as ‘JT’, ‘JTI’, ‘Japan Tobacco’, ‘SRF’, ‘TIOJ’, ‘Tobacco Business Council’, ‘TBC’, ‘MHW’ and ‘MOF’. After identifying key persons and institutions, we used names for further searches, along with snowball methods and consultation of litigation documents and published literature. We also translated the present text into Japanese (see online supplementary text).

NB: Japan Tobacco has undergone several name changes over the course of the past century. With privatisation in 1985, for example, the Japan Tobacco and Salt Public Corporation (JTS) became Japan Tobacco, Inc. (JT). JT International is currently known as JTI, but in the period examined here, foreign companies often referred to JT Inc. as JTI. We shall be using the acronyms JT, JTI or JTS appropriate for the time and context.

RESULTS

The launch of SRF in response to JTS privatisation

JTI became a ‘private’, publicly traded corporation on 1 April 1985,^{30 31} protected by the Tobacco Enterprise Law (*tabako jigyō hō*) of 1984, passed to promote ‘the sound development of the Japanese tobacco industry, thereby securing stable national

revenues’. Legally, Japan Tobacco remained under the supervision of the MOF, where it remains today. The government initially retained all stock in the company; the retained proportion of shares decreased to 80% in 1994, 50% in 2004 and 33% in 2013.

Even with governmental protection, however, the newly privatised company faced several challenges, including loss of access to key political resources and influence. It also came under pressure from foreign manufacturers hoping to enter Japan’s newly opened markets.^{32–35} Philip Morris (PM) in particular wanted to make sure Japanese cigarette makers adopted the global denialist campaign.²⁵

In January 1986, for example, Matthew Winokur, a PM Asia executive who rose to become director of PM International (PMI) Corporate Affairs, visited Japan ‘to work with the JTI [Japan Tobacco, Inc.] to deal with smoking and health’.²¹ Winokur met with Yoshiharu Shimizu, head of JT’s Smoking and Health Information Department, who explained to him that ‘now that the JTI is private, it no longer has the direct and automatic access to politicians that it once had’; JT thus ‘needs the help of the foreign manufacturers in fighting the A/S [anti-smoking] movement’.²¹ PM welcomed this new collaboration, recognising that Japanese cooperation was needed to defend the global industry against efforts to establish clean indoor air laws. This was particularly important after Takeshi Hirayama’s 1981 paper showing that the non-smoking wives of smoking husbands had significantly higher lung cancer rates than the wives of non-smoking husbands.³⁶

Japan’s smoking and health research

JT by this time had been studying ‘smoking and health’ for several decades (table 1). In addition to its own research, the company had also financed studies at medical and academic institutions throughout Japan, with outlays increasing from 0.7 million yen in 1957 (for two projects) to 100 million in 1976 (for 24 projects),

Table 1 Key events in Japanese smoking and health history

1957	JTS starts funding external research into ‘smoking and health’
1964	MHW issues directives to prevent underage smoking and to warn about health harms caused by smoking ³⁰
1970	Smoking and Health Information Department established at JTS ²³
1971	MHW testifies in Diet that tobacco is beyond ministry’s jurisdiction ³⁰
1972	Modest caution goes on cigarette packs: ‘For health reasons, let’s be careful not to smoke too much’.
1973	Council for the Study of Smoking and Health established by JTS
1977	Per capita adult cigarette consumption (age 15 years and older) peaks at 3500 cigarettes per year ⁹²
1985	JTS is privatised to become JT Council for the Study of Smoking and Health publishes <i>Studies on Smoking and Health 1979–1983</i>
1986	Smoking Research Foundation launched
1987	Tobacco Institute of Japan established by JT and foreign companies MHW’s first White Paper on Smoking and Health published
1989	Tobacco Business Council submits report to MOF
1990	The 1972 warning label is updated to: ‘As smoking might injure your health, let’s be careful not to smoke too much’
1993	MHW’s second White Paper on Smoking and Health published
1996	Japanese cigarette consumption peaks at 348 billion per annum ^{92 93}
1999	JT’s annual profit from cigarette sales reaches 4.26 trillion yen ⁹³
2001	Third White Paper on Smoking and Health published
2004	Japan ratifies Framework Convention on Tobacco Control
2005	Eight new warning labels introduced (each pack needs to carry two) including: ‘Tobacco smoke has a bad influence on the health of people around you, especially infants, children and the elderly etc. When smoking, let’s be careful not to bother people around you’.
2014	Tokyo High Court refuses to acknowledge that secondhand smoke causes lung cancer and heart disease.
2016	MHLW estimates number of deaths in Japan from exposure to secondhand smoke at 15 000 per year Ministry’s fourth White Paper on Smoking and Health published

JT, Japan Tobacco, Inc; JTS, Japan Tobacco and Salt Public Corporation; MHLW, Ministry of Health, Labour and Welfare; MHW, Ministry of Health and Welfare; MOF, Ministry of Finance.

to 300 million yen in 1985 (for 97 projects).³⁷ JTS had established SRF's predecessor organisation, the Council for the Study of Smoking and Health, in 1973—as a separate division within the company—to administer 'studies on smoking and health'.³⁸ Twelve years later, a few months before SRF was inaugurated, the Council published *Studies on Smoking and Health 1979–1983* (hereafter *Studies*), summarising 116 different projects it had commissioned, with the Council described (in a translation sent to PM) as 'a strictly impartial and independent organization which imparts a wide range of studies, allots funds, and evaluates the results'.³⁸ During this period, government tobacco control efforts were minimal.^{13 39}

Internal industry documents indicate that JTS was careful to make sure the research it funded would demonstrate certain 'benefits' (physical and psychological) from smoking. In 1983, during a meeting with Tobacco Institute (TI) personnel in Washington, DC, Akio Ohnishi, manager of JTS's Smoking and Health Information Department, mentioned that JTS was interested in supporting 'research to assess those areas of human health and well-being in which cigarette smoking might be considered to be beneficial'.⁴⁰ Ohnishi asked for names of researchers conducting such studies in the USA and commented that JTS was 'ready to contribute \$100 000 to the first year's effort in such a research endeavour, with additional funding in subsequent years'.⁴⁰

In publishing the Council's retrospective *Studies*, JT sought to keep doubt alive. In 1985, the company had communicated with the TI's William Kloepfer about publicising the *Studies* 'in Japan and internationally'—especially its conclusion that 'the effects of smoking on mental and physical health have not been scientifically proven'.⁴¹ In a meeting with Winokur in February 1986, Shimizu noted that the publication was 'part of JTI's effort to respond to anti-smoking pressures'.⁴² Specifically, JT sought to provide 'a balanced review of current research' to influence the Ministry's forthcoming 'Surgeon General's type report in Japan' (the 1987 *White Paper on Smoking and Health*); JT was also 'concerned about product liability suits in Japan' and wanted 'to start publicizing sound research'.⁴² As explained to Winokur by a PM Japan employee, the *Studies* was planned to become 'the core of the [Smoking Research] Foundation's argumentation in S/H [smoking and health]'.⁴³

Foreign collaboration and the myth of independence

Establishing a separate SRF was intended to highlight the 'independence' of the organisation from control by the cigarette industry. In 1986, Akira Nomoto, an attorney for PM Asia (at Aoki, Christensen & Nomoto in Tokyo), noted the importance of creating a semblance of independence, arguing that 'research result[s] made by a neutral organization serving for the public interests would be more acceptable to the public as well as to government organizations'.⁴⁴

Nomoto's assessment was consistent with what JT had expressed at an 'Industry Interface Meeting on ETS' held in London in June 1988. In that meeting Hiroshi Ichinose, a senior researcher in JT's Smoking and Health Information Department, pointed out that in publicising information on ETS 'the industry must be inconspicuous. Otherwise... the public will suspect the authenticity of the information'.⁴⁵ Ichinose also recommended the use of 'third parties to convey the industry's message'.⁴⁵

SRF was placed under the protection of the MOF. According to Michiko Egawa at PM Japan, 'under normal circumstances' SRF would be under the purview of the health ministry; however, 'due to the great effort of Mr. Shimizu, pressure was applied successful [sic] to have the M.O.F. share in the administration'.⁴⁶

Egawa also noted that SRF 'is quite different in terms of membership than the CTR (U.S.A.) [Council for Tobacco Research] and has political influences'.⁴⁶

Prior to SRF's creation, JT executives consulted with overseas cigarette makers. In June of 1985, for example, two top-level JT advisors—Yoshiharu Shimizu and Seigo Fukuma, a leading figure in the Japan Lung Cancer Society—visited the TI in Washington, DC. Among 10 items prepared for discussion, one concerned the possibility of American companies contributing to the proposed foundation. Another concerned 'counter-measures... suitable for Smoking and Health issues in Japan'.⁴⁷

When JT Vice President Tadayuki Ishii and PMI President R. William Murray corresponded in February 1986, discussions again focused on the 'formation of a foundation to conduct research' along with 'counterplans with regard to future smoking and health problems in both our countries'.⁴⁸ Several months later, PM executives told JT's Executive Managing Director Sosaku Mori that PM 'would accept JTI's invitation to help underwrite the new research foundation'.⁴⁹ In exchange, 'R. W. Murray will join the Board of Trustees'.⁵⁰ Money, though, was never really the primary issue. In his letter, Winokur noted that PM's participation was more 'a show of cooperation and friendship',⁴⁹ with added value insofar as 'the body of research will be useful outside Japan'.²¹

A roster of notables linking big tobacco and academic medicine

The SRF was protected by a network of powerful men (and all were men) enlisted in its 'preparation committee'. JT (probably Shimizu) gave a tentative list of names to Winokur in February 1986, explaining that the committee would have people from: 'academic' (medical scientists), 'official' (government ministries), 'economic' (including financial institutions) and 'tobacco industry' (JT and its affiliates) sectors.^{42 51}

The finalised committee was impressive, including powerful members from each of these sectors (table 2). Shigeeya Yoshise and Minoru Nagaoka, for example, were both former Administrative Vice Ministers of Finance in the Japanese government. The committee also included Takeji Kato, a former Administrative Vice Minister of Health and Welfare (1974–1975). (In Japan, Administrative Vice Ministers are the most powerful career civil servants in any ministry.) A total of 11 such luminaries are listed as founders (*hokkinnin*) under the 'purpose of establishment' in SRF's 1986 annual report.²⁰ All but one (Wataru Mori) assumed positions of leadership at SRF. The office of director general (*rijichō*), for example, was held by Hideo Katsuki, who had served as a high-ranking advisor (*komon*) to JT's now defunct Council for the Study of Smoking and Health, and other founders assumed positions on SRF's Board of Directors (*riji*). JT's president and vice president were both on that same board. The (false) impression of neutrality was aided by the fact that the industry ties of many other board members were not publicly disclosed, even as they were freely shared with foreign manufacturers (see table 2).

A similar pattern of asymmetry (public concealment vs intraindustry disclosure) can be found for SRF's Board of Trustees (*hyōgiin*). Hitoshi Kasuga, for example, was listed as a professor at Tokai University, but in PM correspondence he is identified as 'Former Dir. General of Environmental Agency' (actually the Air Protection Bureau within the Agency, from 1973 to 1975).⁵² Yoshiharu Shimizu, JT's 'smoking and health' expert, was named SRF's Secretary General (*jimukyokuchō*), even as his ties to the industry were hidden. SRF's 1988 annual (public) report lists him simply as 'Yoshiharu Shimizu, M.D.'.⁵³

Table 2 Members of SRF preparatory committee and board of directors

Name	Prep committee	Board of directors	Published title	Titles shared with foreign cigarette makers
Shigeya Yoshise 吉瀬維哉	Member (Chairman)*	Director 理事	President of Japan Development Bank 日本開発銀行総裁	'Ex Administrative Vice Minister of Finance'
Hideo Katsuki 香月秀雄	Chairman (Member)*	Director General 理事長	President of Open University 放送大学学長	'Advisor to the Council for the Study of Smoking and Health' (see table 3)
Kunio Ota 太田邦夫	Member	Director	President of the Japanese Association of Medical Sciences 日本医学会会長	'First chairman, the Council for the Study of Smoking and Health'
Wataru Mori 森亘	Member	–	–	'Chancellor, The University of Tokyo'
Masamitsu Oshima 大島正光	Member	Director	Director General, Medical Information Systems Development Center 医療情報システム開発センター理事長	'Chairman, Japan Society of Health Sciences'
Masaaki Kato 加藤正明	Member	Director	Emeritus Professor at Tokyo Medical College 東京医科大学名誉教授	'Director General, Stress Committee [probably of health/labor ministries]'
Toru Inagawa 稲川徹	Member	Director	President of Nippon Filter Co. Ltd. 日本フィルター工業会会長	'Director, [...] TASC [probably Tobacco Academic Studies Center]'
Shuji Konishi 小西秀次	Member	Director	Chairman of Kirin Brewery Co. 麒麟麦酒株式会社代表取締役会長	'Executive director, The Federation of Economic Organizations'
Tadayuki Ishii 石井忠順	Member	Director	Vice President of JT JT代表取締役副社長	–
Minoru Nagaoka 長岡實	Member	Director	President of JT JT代表取締役社長	–
Takeji Kato 加藤威二	Member	Director	Director of Tokyo Welfare Annuity Hall, Employees' Pension Insurance Welfare Corp. 厚生団東京厚生年金会館館長	'Ex Administrative Vice Minister of Health and Welfare'
Hiroshi Mizunuma 水沼寛	–	Managing Director 専務理事	Councilor of Japan Society of Health Sciences 日本健康科学学会評議員	'Former Chief Manager, Clinic, Japan Tobacco Inc.'

Board of directors membership is from SRF's 1986 Program Outline.²⁰ Quotes in the far-right column are from internal documents of Philip Morris,⁵¹ Brown & Williamson⁹⁴ and Reynolds.⁹⁵

*According to documents sent to Philip Morris and Brown & Williamson, the chairman of the preparatory committee was Shigeya Yoshise; SRF, however, listed Katsuki as chair (*daihyō*).²⁰

From its inception, SRF has had a Scientific Advisory Board (SAB) 'for the purpose of selecting the research projects on smoking and reviewing the research results'.⁵⁴ The SAB essentially inherited the former Council for the Study of Smoking and Health's functions. Most of the scholars filling SAB positions (7 out of 10) were former Council members (table 3), including the chair, Hiomi Honma, who had earlier chaired the Council. Seigo Fukuma had been a Corporate Advisor to JT. PM confided that the SAB was comprised of 'well connected' people.⁵²

SRF in action

Two key events in 1987 were of great concern for the industry: the Sixth World Conference on Smoking and Health (in Tokyo) and the publication of the Health Ministry's *White Paper on Smoking and Health*. SRF helped the industry blunt both events.

SRF-ETS projects and the world conference of 1987

At a joint industry meeting in March 1987, Yukio Akiyama from JT's Smoking and Health Information Department summarised the 'status of ETS research in Japan', including 13 studies, 12 of which were funded by SRF ('SRF-ETS' projects), with a 13th funded directly by JT.⁵⁵ The meeting was attended by leaders from the UK's Tobacco Advisory Council, West Germany's

Verband der Cigarettenindustrie and the TI's ETS Advisory Committee. SRF was part of this global industry research/denialist effort.

JT also sent SRF researchers and planned to spend money (2–3 million yen) to influence the Sixth World Conference on Smoking and Health,^{25 27 46 56} with the result that at least two 'SRF-ETS' principal investigators (PIs), including Hitoshi Kasuga, made it onto Conference committees.⁵⁷ Over half of all 'SRF-ETS' PIs also attended an industry-financed International Conference on Indoor Air Quality, held in Tokyo 'to preempt the impact of the World Health Conference'.^{25 58} To prepare for this conference, JT established a nominally 'independent' scientific front, the Council of Environment and Health,^{25 59 60} and an organising committee⁶¹ comprised of scholars with SRF connections (with Kasuga as chair). SRF provided 2.3 million yen for the conference.⁶²

The 1987 White Paper

In preparing for the Sixth World Conference, the Japanese Ministry of Health and Welfare (MHW) decided to publish Japan's first government report on smoking and health, the 1987 *White Paper*.¹³ JT managed to exert influence on this, too, via an influential SRF scholar. The foundation's SAB chairman, Hiomi Honma, was

Table 3 Members of the Council for the Study of Smoking and Health ('Council') and SRF's Scientific Advisory Board ('SRF SAB')

Name	Council	SRF SAB	Title on published SAB list	Title in communications with Philip Morris
Hiomi Honma 本間日臣	Chairman (grantee)	Chairman	Professor, Open University 放送大学教授	'Specialist in respiratory disease <u>also</u> a member of MHW's Expert Committee on S/H'
Yutaka Abe 阿部裕	Member (grantee)	Member	Director, National Hospital of Osaka 国立大阪病院院長	'Cardiologist'
Genshiro Ide 井出源四郎	Member (grantee)	Member	President, Chiba University 千葉大学学長	'Pathologist. Studies in mucus membranes due to smoking. Concluded change was reversible.'
Hiroo Imura 井村裕夫	Member (grantee)	Member	Professor, Kyoto University 京都大学教授	'Endocrinologist'
Shozo Takayama 高山昭三	Member (grantee)	Member	Director, National Cancer Center Research Institute 国立がんセンター研究所所長	'Experimental pathologist. Done extensive tob[acco] related research'. The Institute 'attached to MHW'.
Motohatsu Fujiwara 藤原元始	Member (grantee)	Member	Professor, Kyoto University 京都大学教授	'Pharmacologist. top J. authority'.
Hideo Katsuki 香月秀雄	Senior Advisor (grantee)	–	–	(SRF Director; see table 2)
Kinya Sawada 澤田勤也	Senior Advisor (grantee)	Senior Advisor	Head of Clinical Dept, Chiba Cancer Center 千葉県がんセンター診療部長	–*
Hideo Yamamura 山村秀夫	–	Member	Director, Tokyo <i>Senbai</i> [monopoly] Hospital; Emeritus Professor, Univ. of Tokyo 東京専売病院院長・東大名誉教授	Tokyo Senbai Hospital 'belongs to JTI'
Yawara Yamanaka 山中和	–	Member	Executive Director, Japan Environmental Sanitation Center 日本環境衛生センター専務理事	'Former Dir. Gen. of Env. Prot[ection] under MHW'. The Sanitation Center 'under direct control of MHW'.
Seigo Fukuma 福間誠吾	–	Senior Advisor	Emeritus Director, Chiba Cancer Center 千葉県がんセンター名誉センター長	'Corporate Advisor, Japan Tobacco Inc'. *

NB: all of the former Council members became SRF members; Katsuki was named director of the foundation, and the rest joined its SAB. Published titles are from listings of SAB members in SRF literature.²⁰ Quotes in the far-right column are from handwritten notes in a 1986 Philip Morris internal document (underline in original).⁵²

*For these two members, there were no handwritten notes in the typed information given to PM, probably because these men were already known to PM; for Fukuma, 'Corporate Advisor...' was typed on the internal document.
MHW, Ministry of Health and Welfare.

appointed to the Public Health Council, the panel assembled by the MHW to draft its *White Paper*. At the time of Winokur's visit to Tokyo in February 1986, Shimizu had reported that JT was planning to add 'one or two additional members who might ensure a more balanced report' to the panel being assembled by the ministry.⁴² By April of that year, JT had 'succeeded in sending JTI's medical advisor to the Public Health Council on S/H [smoking and health] of the Ministry of Health and Welfare as an official member'. Michiko Egawa at PM Japan explained to Winokur: 'This has been made possible by the pressure of the Ministry of Finance [MOF]. Of course, the JTI was behind the MOF. The MOF itself became an observer to this council'.⁴³

Michiko Egawa also observed that by gaining a seat ('member') for the cigarette maker on the Public Health Council, JT 'can influence decisions made by the Council through the member, and official minutes will be available through the MOF'. Egawa noted that the point of such manoeuvrings would be 'to wield pressure on the Council, if necessary'.⁴³ Shotaro Takeda, head of JT's Smoking and Health Department, wrote in a confidential document: 'In an effort to minimize the impact of Ministry of Health and Welfare's White Paper, the JTI has been working quietly with both MOHW [i.e., MHW] and the Ministry of Finance'.⁶³ Winokur would later reminisce: 'In 1987 ... the JT, via the MOF, had very good channels into the MOH [i.e., MHW] and was able to comment on the report as it was being written'.⁶⁴ Staff at British American Tobacco (BAT) made similar observations, commenting on how JT was 'actively involved in "proof reading" drafts and submitting data for inclusion'.⁶⁵ We also find British cigarette makers acknowledging JT's success in assembling the panel, given that Takeshi Hirayama was 'not invited'.⁶⁵

The TBC report from 1989

With pressure for tobacco control mounting, MOF felt obliged to respond publicly to MHW's *White Paper* and the World

Conference, both of which posed threats to the continued sale of cigarettes. The instrument chosen for this purpose was the Tobacco Business Council (TBC), a body housed within the MOF.

In 1988, TBC was asked to draft a recommendation (to the MOF) on the 'direction of tobacco business regarding smoking and health'. One year later, the report was published.⁶⁶ The principal goal was to develop tobacco policy, but the report would also figure in subsequent legal disputes, where judgments had to be rendered concerning whether JT had been negligent in dealing with the hazards of smoking. In drafting this report, foreign manufacturers did not stand idly by.

In his 1986 trip report, for example, PM's Winokur conveyed Shimizu's request for help: 'To help formulate an opinion, the TBC will create independent advisory panels to look into each issue, such as primary health, passive smoking, vending machines and warning labels... Shimizu specifically wants our help in affecting the composition of these panels'.²¹

It is not hard to understand why the Japanese lawyer (for plaintiffs) Yoshio Isayama in 1999 characterised the TBC as the MOF's 'farce' (*chaban*).²⁶ Most TBC members (9 of 15) had cigarette industry ties.⁶⁷ SRF contributed substantially to TBC's subcommittee on 'Smoking and Health'; over half its members were SRF grantees or administrators. Staffed with such confidants, TBC came to predictably cigarette-friendly conclusions. In its 1989 report, smoking was held to have 'positive effects mentally' for smokers, and while there was 'a possibility for smoking to be a risk factor for physical health', this had to be balanced against the fact that 'since not all of these questions have been resolved, we need to continue comprehensive research in even broader fields'. As for passive smoking, 'not everything has been elucidated at the present time, and this should be a topic for future research'.⁶⁶

SRF, Tobacco Institute of Japan (TIOJ) and current litigation

Responding to TBC’s recommendations, MOF issued weak ministerial guidance restricting televised cigarette advertising.^{13 30} Soon thereafter, PM Japan outlined plans for SRF in a corporate strategy document. To ‘Forestall restrictions on public smoking’ and to ‘Keep current tolerance level’, the plan was to invite ‘Mr. J. Rapp [probably John Rupp], ETS Lawyer for T.I. ... to develop communication with expert scientists of the Smoking Science Foundation of JTI [i.e., SRF], and build strategies’.⁶⁸ Other plans included establishing ‘direct access to the prosmoking groups in order to provide supports in “Sick Building” publication and in promoting refutation by Japanese scholars of the Hirayama Research’.⁶⁸ ‘Sick building syndrome’ was the industry’s notion that indoor air pollution is caused not by smoking but by improper ventilation.⁶⁹ Kasuga, for example, wrote many articles questioning ETS epidemiology, and another ‘SRF-ETS’ PI, Hidetsuru Matsushita from the National Institute of Public Health, wrote exculpatory articles blaming ‘alternate causes’.^{70–76}

This same PM document expressed concerns about future product liability cases. PM explained that JT had begun its Smoking Clean Campaign in 1963 and by 1987 had spent over a billion yen on this project, employing a staff of 100. PM pointed to its legal value and ‘proactive deterrent power’ and hoped to expand such campaigns through the TIOJ and an enlarged legal information network, with the goals of keeping ‘the current social acceptability level’ and developing ‘preparedness ... for product liability cases in the future’.⁶⁸

TIOJ was established in February 1987 to coordinate the cigarette companies then entering the Japanese market—notably PM, RJR, Brown & Williamson and Rothmans Marubeni.⁷⁷ From the beginning, TIOJ had a Smoking and Health Subcommittee, established with the help of American law firms (eg, Shook, Hardy and Bacon) to develop and enforce ‘Common industry positions on Smoking and Health’.^{78 79} Shortly after its inauguration, TIOJ circulated a confidential document titled ‘The Japanese Smoking & Health Controversy: TIOJ Plan’.⁸⁰ The plan had three primary objectives, all of which began with an imperative involving ‘delay’ (Table 4). It is important to note that SRF served this same set of goals.

The industry’s ‘preparedness’ created by such efforts (and many more) has been effective in Japanese courts. First and foremost, TBC’s carefully crafted report, not entirely denying harms but insisting on a need for ‘more research’, has been effectively deployed in recent litigation as evidence of an exculpatory ‘consensus’. In a lawsuit filed by three smokers in 2005,³ for example, the Yokohama District Court ruled in 2010 that JT could not be expected to have recognised ‘the magnitude of the

risk posed by tobacco in developing diseases such as lung cancer’; one could therefore not conclude that JT knew or should have known that by continuing to sell cigarettes, large numbers of people would suffer and die. In coming to this conclusion, the Court relied on the 1989 TBC report.⁸¹

In this same case, the plaintiffs claimed that JT knew very well that cigarettes cause harm but had sought to confuse the public with regard to whether such harms were conclusively proven. The Yokohama Court, however, pointed out that JT had begun funding ‘smoking and health’ research as early as 1957; JT had established a smoking and health division within the company and had eventually published many of its externally funded studies. Based on this evidence, the Court ruled that JT had not been negligent in failing to conduct research or in actively seeking to confuse with regard to harms. The Court also pointed out that in considering whether cigarette sales should be legal, one should keep in mind that tobacco has been part of Japanese society since the 17th century and that smoking has long been socially acceptable.⁸¹

DISCUSSION

The continuing power of ‘Japan, Inc.’

In the USA, institutions closest to SRF would be the Council for Tobacco Research (CTR) and the Center for Indoor Air Research, both of which were disbanded with the Master Settlement Agreement of 1998, following recognition of their crucial role in the broader denial campaign. SRF and these American institutions were similar insofar as both supported basic biomedical research, and both were used to question whether cigarettes really cause harm, promulgating a false controversy. Both were used to create ‘a stable of experts’ willing to serve as authors, speakers or witnesses in cigarette-friendly symposia and lawsuits and to influence policy.^{82 83} Both helped create ‘goodwill’ for the industry, conveying an impression of a responsible industry selling a controversial product. CTR and SRF both lent credibility to their funders. CTR funded over a hundred different academic institutions; SRF funded up to 90 in 1 year.^{84 85}

The SRF must also be considered an instrument used by global cigarette makers to transmit the denialist campaign into Asia. In the USA, the formal campaign to deny smoking’s harms began in December 1953, with a meeting of American cigarette CEOs at Manhattan’s Plaza Hotel. That campaign was first extended into Canada, and then to Europe in 1977 following the establishment of the International Committee on Smoking Issues in England.^{86 87} The founding of SRF in 1986 and TIOJ in 1987 represents the extension into Asia. JT and foreign manufacturers together have long worked to influence litigation, legislation and public opinion—the three pillars of the ‘holding strategy’ devised by cigarette makers to defend the continued sale of cigarettes.⁸⁸ The SRF also operates in an elaborate network of interested and powerful parties, including the Japanese MOF, JT itself, foreign cigarette manufacturers and the TIOJ and numerous recipients of tobacco money (notably academics and media organisations).

The 2020 Olympics in Tokyo promises to become an opportunity for Japan to strengthen its clean air laws. In anticipation, Ministry of Health, Labour and Welfare in October 2016 released a proposal to ban smoking in all public buildings.⁸⁹ That proposal has encountered stiff opposition from tobacco lobbies.⁹⁰ As the Tokyo Metropolitan Government has also proposed a passive smoking ordinance recently (in September 2017), a broader national smoking ban might still move forward.

Table 4 Industry objectives in TIOJ’s 1987 plan on ‘Smoking and Health’⁸⁰

- ▶ ‘Delay regulation of advertising and promotional activities for as long as possible’.
- ▶ ‘Delay and minimize regulations which could have an immediate and dramatic impact on the industry,’ especially those concerning vending machines, product labeling, and product content.
- ▶ ‘Delay further erosion in the social acceptability of smoking within Japanese society’.

TIOJ, Tobacco Institute of Japan.

BAT's Friedlieb Seehofer and Graham Smith reported after visiting JT headquarters in October of 1986: 'It must be remembered that the country is regarded as one company ... thus there is cooperation between industry, financial institutes and the government to form 'Japan Inc.'.⁶⁵ It would be difficult to exaggerate the depth and complexity of these interlocking networks of political influence and their impact on Japanese tobacco policy (or lack thereof). Even in the 21st century, Japanese cigarette makers have been able to exert an enormous influence over global public health treaties, including the Framework Convention on Tobacco Control.⁹¹

Part of this problem traces back to the revolving door joining government and the industry; the term used in Japan is *ama-kudari* (literally 'descending from heaven'), referencing the process by which retired bureaucrats begin a second career in industries related to their ministries' jurisdiction.^{28 30 31} JT could not have influenced tobacco control policy so effectively without allies at the highest levels of the country's research and political establishment, facilitated by this unhealthy revolving door.

The relationships sketched here, however, must be regarded as minimally diagnostic rather than exhaustive. What we know thus far is that which can be unearthed from the archives disgorged through tobacco litigation in the USA. A fuller extent of such networks—and the vast corruption entailed in 'Japan Inc.'—might be knowable if documents from the internal archives of Japan Tobacco could be accessed.

What this paper adds

- ▶ This first detailed analysis of the Smoking Research Foundation (SRF) shows that it was never meant to be an independent research funding body. Formerly secret documents from the industry's files show that it was created to generate and publicise cigarette-friendly science through a seemingly neutral third party front.
- ▶ SRF was established with covert collaboration from foreign cigarette makers as part of a global effort to defend the industry from threats in the realm of litigation, legislation and public opinion. Foreign cigarette makers expected SRF to assist in undermining effective tobacco control, both globally and locally.
- ▶ SRF has helped global cigarette makers create and maintain a 'stable of experts' willing to present cigarette-friendly science in lawsuits and regulatory hearings, assisting thereby in neutralising threats to the continued manufacture of cigarettes.

Acknowledgements We would like to thank anonymous reviewers for helpful comments, lawyers Koki Okamoto and Ritsu Katayama for sharing documents and other information regarding Japanese lawsuits, and Manabu Sakuta, MD, for pointing KI to Truth archive documents indicating JT consultants.

Contributors KI conducted document search and analysis and wrote the first draft of the paper. RNP and KI rewrote and edited the draft.

Funding No specific funding for this work.

Competing interests RNP often serves as an expert witness in litigation against the cigarette industry.

Patient consent Not required.

Provenance and peer review Not commissioned; externally peer reviewed.

Open Access This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work

is properly cited and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>

© Article author(s) (or their employer(s) unless otherwise stated in the text of the article) 2018. All rights reserved. No commercial use is permitted unless otherwise expressly granted.

REFERENCES

- 1 Bero LA, Glantz S, Hong MK. The limits of competing interest disclosures. *Tob Control* 2005;14:118–26.
- 2 Enstrom JE, Kabat GC. Environmental tobacco smoke and tobacco related mortality in a prospective study of Californians, 1960–98. *BMJ* 2003;326:1057.
- 3 Levin MA. Puffing precedents: The impact of the WHO FCTC on tobacco product liability litigation in Japan. *Asian Journal of WTO & International Health Law and Policy* 2016;1:19–48.
- 4 Thun MJ. More misleading science from the tobacco industry. *BMJ* 2003;327:E237–E238.
- 5 Japan Tobacco Inc. Kankyō-chū tabakoen [environmental tobacco smoke]. <https://www.jti.co.jp/corporate/enterprise/tobacco/responsibilities/responsibility/smoke/index.html> (accessed 20 Sep 2017).
- 6 Boffetta P, Agudo A, Ahrens W, et al. Multicenter case-control study of exposure to environmental tobacco smoke and lung cancer in Europe. *J Natl Cancer Inst* 1998;90:1440–50.
- 7 Ong EK, Glantz SA. Tobacco industry efforts subverting International Agency for Research on Cancer's second-hand smoke study. *Lancet* 2000;355:1253–9.
- 8 Japan Tobacco Inc. JT's comment on the MHLW estimate' 15,000 deaths per year by passive smoking'. 2016 https://www.jti.co.jp/tobacco/responsibilities/opinion/mhlw_report/20160531.html (accessed 18 Apr 2017).
- 9 Bialous SA, Mochizuki-Kobayashi Y, Stillman F. Courtesy and the challenges of implementing smoke-free policies in Japan. *Nicotine Tob Res* 2006;8:203–16.
- 10 Kashiwabara M, Armada F. Mind your 'smoking manners': the tobacco industry tactics to normalize smoking in Japan. *Kobe J Med Sci* 2013;59:E132–E140.
- 11 Murata Y. *Judō kitsuen no kankyōgaku: kenkō to tabako shakai no yukue [Environmental studies of passive smoking: where will health and tobacco-friendly society go?]*. Kyoto: Sekai shisōsha, 2012.
- 12 Feldman EA. The culture of legal change: a case study of tobacco control in twenty-first century Japan. *Michigan Journal of International Law* 2005;27:743–821.
- 13 Levin MA. Tobacco industrial policy and tobacco control policy in Japan. In: Mochizuki-Kobayashi Y, Samet JM, Yamaguchi N, eds. Tobacco free Japan: recommendations for tobacco control policy, 2004:298–318. <http://escholarship.org/uc/item/9x27v23m> (accessed 18 Apr 2017).
- 14 Bibai City. Bibai-shi judō kitsuen bōshi jōrei [Bibai City Ordinance on Prevention of Passive Smoking]. 2015 <http://www.city.bibai.hokkaido.jp/jyumin/docs/2015121700027/> (accessed 18 Apr 2017).
- 15 Hyogo Prefecture. Judō kitsuen taisaku no suishin ni tsuite [About our promotion of passive smoking measures]. 2016 https://web.pref.hyogo.lg.jp/kf17/judoukitsuen_jourei.html (accessed 18 Apr 2017).
- 16 Kanagawa Prefecture. Kanagawa-ken kōkyōteki shisetsu ni okeru judō kitsuen bōshi jōrei [Kanagawa Prefectural Government Ordinance on Prevention of Exposure to Secondhand Smoke in Public Facilities]. 2016 <http://www.pref.kanagawa.jp/cnt/f6955/p23021.html> (accessed 18 Apr 2017).
- 17 Kashiwabara M, Armada F, Yoshimi I. Kanagawa, Japan's tobacco control legislation: a breakthrough? *Asian Pac J Cancer Prev* 2011;12:1909–16.
- 18 Yamada K, Mori N, Kashiwabara M, et al. Industry speed bumps on local tobacco control in Japan? The case of Hyogo. *J Epidemiol* 2015;25:496–504.
- 19 World Health Organization. WHO report on the global tobacco epidemic 2017: country profile Japan. http://www.who.int/tobacco/surveillance/policy/country_profile/jpn.pdf (accessed 10 Sept 2017).
- 20 Smoking Research Foundation. *1986 program outline of the smoking research foundation and financial*. Tokyo: Smoking Research Foundation, 1987.
- 21 Matthew N. Winokur to D. S. Devitre. Trip report – Japan, Jan. 21–24, 1986. <https://industrydocuments.library.ucsf.edu/tobacco/docs/#id=fkhn0141> (accessed 4 Apr 2017).
- 22 Smoking Research Foundation. Dai-5-ki (heisei 27 nendo) Jigyō hōkoku [Financial report of the fiscal year 2015]. <http://www.srf.or.jp/profile/pdfs/finance.pdf#page=1&pagemode=bookmark> (accessed 18 Apr 2017).
- 23 Mizuno et al. v. JT et al. *Yokohama District Court. Heisei-17 (wa) 141 go. Chinjutsusho [witness report] submitted by Yoshiniko Ohkawa*, 2008.
- 24 Assunta Kolandai M. *The tobacco industry in Japan and its influence on tobacco control [dissertation]*. Sydney: University of Sydney, 2007.
- 25 Iida K, Proctor RN. Learning from Philip Morris: Japan Tobacco's strategies regarding evidence of tobacco health harms as revealed in internal documents from the American tobacco industry. *Lancet* 2004;363:1820–4.
- 26 Isayama Y. *Gendai tabako ronsō [The recent war on tobacco]*. Tokyo: Iwanami shoten, 1999.
- 27 Muggli ME, Forster JL, Hurt RD, et al. The smoke you don't see: uncovering tobacco industry scientific strategies aimed against environmental tobacco smoke policies. *Am J Public Health* 2001;91:1419–23.

- 28 Matsuzawa S. *JT, zaimu, tabako riken: Nihon saigo no kyodai riken no yami* [JT, Ministry of Finance, Tobacco's Vested Interests]. Tokyo: Wani Books, 2013.
- 29 Japan Society for Tobacco Control. Kitsuken kagaku kenkyū zaidan no kaisan o kankoku shimasu [We call for the Smoking Research Foundation to be dissolved]. 2008. <http://www.nosmoke55.jp/action/0808kitukenkagakuzaidan.pdf> (accessed 4 Apr 2017).
- 30 Levin MA. Smoke around the rising sun: an American look at tobacco regulation in Japan. *Stanford Law & Policy Review* 1997;8:99–123.
- 31 Murakami R. *Nihon kōkigyōshi: tabako senbajigō no baai* [History of a public corporation in Japan: a case of tobacco monopoly]. Kyoto: Minerva Shobo, 2001.
- 32 Brandt AM. *The cigarette century: the rise, fall, and deadly persistence of the product that defined America*. New York: Basic Books, 2007:459–61.
- 33 Honjo K, Kawachi I. Effects of market liberalisation on smoking in Japan. *Tob Control* 2000;9:193–200.
- 34 Lambert A, Sargent JD, Glantz SA, et al. How Philip Morris unlocked the Japanese cigarette market: lessons for global tobacco control. *Tob Control* 2004;13:379–87.
- 35 Sato H, Araki S, Yokoyama K. Influence of monopoly privatization and market liberalization on smoking prevalence in Japan: trends of smoking prevalence in Japan in 1975–1995. *Addiction* 2000;95:1079–88.
- 36 Hirayama T. Non-smoking wives of heavy smokers have a higher risk of lung cancer: a study from Japan. *Br Med J* 1981;282:183–5.
- 37 Development of JTI-Commissioned Research Projects since 1957 (on p44 in the file). <https://www.industrydocumentslibrary.ucsf.edu/docs/#id=hmjw0095> (accessed 4 Apr 2017).
- 38 Council for the Study of Smoking and Health. Studies on smoking and health 1979–1983: retrospect and prospect. 1985 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=yglf0058> (accessed 4 Apr 2017).
- 39 Feldman EA. The landscape of Japanese tobacco policy: law, smoking and social change. *Am J Comp Law* 2001;49:679–706.
- 40 Marvin A, Kastenbaum (TI). Conference: Japan Tobacco and Salt Public Corporation (JTS), The Tobacco Institute (TI), Thursday, February 17, 1983. 18 Feb 1983. <https://industrydocuments.library.ucsf.edu/tobacco/docs/#id=ptxw0123> (accessed 4 Apr 2017).
- 41 Kazuya Takahashi to William Kloefer. 1985. 29 May 1985. <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=gkcv0040> (accessed 4 Apr 2017).
- 42 Matthew N. Winokur to D. S. Devitre. *Japan trip report – Feb. 12-14, 1986*. 17 Feb 1986. <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=llcn0116> (accessed 4 Apr 2017).
- 43 Michiko Egawa to Matthew N. Winokur. S/H Japan. 4 April 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=qsd0120> (accessed 4 Apr 2017).
- 44 Akira Nomoto to Guy R. Aelvoet (President of Philip Morris Japan). 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=rzdl0120> (accessed 4 Apr 2017).
- 45 Unknown. Joint Meeting on ETS – London, England. <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=mgpd0048> (accessed 4 Apr 2017).
- 46 Michiko Egawa to Matthew N. Winokur. Scientific Research Foundation (S.R.F.S.). 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=lsdl0120> (accessed 4 Apr 2017).
- 47 Masao Noguchi to Horace R. Kornegay (TI). Statement of purpose. 1985 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=mkdl0120> (accessed 4 Apr 2017).
- 48 Tadayuki Ishii to R.W. Murray. 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=ggdl0120> (accessed 4 Apr 2017).
- 49 Matthew N. Winokur to R. L. Snyder. Ishii meeting. 1987 <https://www.industrydocumentslibrary.ucsf.edu/docs/#id=jhd0120> (accessed 4 Apr 2017).
- 50 Matthew N. Winokur to D. S. Devitre. Japan S/H Research Foundation. 31 Jul 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=ltcl0120> (accessed 4 Apr 2017).
- 51 Outline of establishment of fundation [sic] to promote and develop researches regarding smoking effect on a human body. 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=ftdl0120> (accessed 4 Apr 2017).
- 52 List of the members of the Scientific Advisory Board (faxed on 31 July 1986). <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=jtcl0120> (accessed 4 Apr 2017).
- 53 Smoking Research Foundation. *1988 Program outline of the smoking research foundation and financial report [Jigyō gaiyō]*. Tokyo: Smoking Research Foundation, 1989:33.
- 54 Annex 2, Smoking Research Foundation, Articles of Association. 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=hmjw0095> (accessed 4 Apr 2017).
- 55 Charles Green to Alan Rodgman. Joint TAC, VdC, JTI, and TI Meeting on ETS. 1987 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=qsb00098> (accessed 4 Apr 2017).
- 56 Michiko Egawa to Matthew N. Winokur. Hirayama's approach to American Family for donation. 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=pldn0116> (accessed 4 Apr 2017).
- 57 Final Circular, 6th World Conference on Smoking and Health. 1987 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=kzgm0074> (accessed 4 Apr 2017).
- 58 Jenny Fung to Mary Pottorff. 1987 ETS Actions. 1987 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=jxcw0110> (accessed 4 Apr 2017).
- 59 The Council of Environment and Health. 1987. <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=kyp0074> (accessed 4 Apr 2017).
- 60 Tom Osdene to Matt Winokur. ETS Meeting. 1987 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=frpc0114> (accessed 4 Apr 2017).
- 61 Final Program, International Conference on Indoor Air Quality, Tokyo. 1987 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=tjpl0074> (accessed 4 Apr 2017).
- 62 Smoking Research Foundation. *1987 Program outline of the smoking research foundation and financial report [Jigyō gaiyō]*. Tokyo: Smoking Research Foundation, 1988:32–3.
- 63 Takeda S. 6th World Conference on Smoking and Health, Up-date. n.d. <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=rsv0210> (accessed 4 Apr 2017).
- 64 Matthew N. Winokur to D. S. Devitre. GOJ Smoking and Health Report. 1993 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=grmn0125> (accessed 4 Apr 2017).
- 65 Seehofer F, Smith G. Visit to Japan October 1986. 1987 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=xlh0138> (accessed 4 Apr 2017).
- 66 Tobacco Business Council – Smoking and Health Problem General Working Committee. *Kitsuken to kenkō no mondai ni kanransuru tabako jigō no arikata ni tsuite* [Direction of tobacco business regarding smoking and health issues], 1989.
- 67 Bukka mondai tō ni kansuru tokubetsu iinkai giroku, dai-4-gō [Meeting records of the price issue special committee, no. 4], House of Representatives (The 112th Diet session). 1988 <http://kokkai.ndl.go.jp/SENTAKU/syugiin/112/0650/11204210650004.pdf> (accessed 18 Apr 2017).
- 68 Morris P. Corporate affairs. 1989 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=nxvm0113> (accessed 4 Apr 2017).
- 69 Murphy M. *Sick building syndrome and the problem of uncertainty: environmental politics, technoscience, and women workers*. Durham [N.C.]: Duke University Press, 2006.
- 70 Kasuga H. Epidemiological study on environmental tobacco smoke [Kankyōchū tabakoen ni yoru judō kitsuen no ekigaku; in Japanese]. *Taikiosen gakkaiishi* 1992;27:175–88.
- 71 Kasuga H. Some comments on the antismoking campaign, from a viewpoint of passive smoking [Kin-en-ron hihan: Shutoshite judō kitsuen no tachiba kara; in Japanese]. *Byōtai seiri* 1993;12:189–95.
- 72 Kasuga H. Risk and benefit of smoking [Tabako no gai to kōyō ni tsuite no nishiki; in Japanese]. *Health Sciences* 1995;11:34–43.
- 73 Kasuga H. Judō kitsuen ni kansuru kisoteki kenkyū [Fundamental studies on passive smoking]. In: Kira S, Takemoto K, Mitsu Y, eds. *Kitsuken kagaku kenkyū: 10-nen no ayumi* [Smoking research: progress in 10 years]. Tokyo: Smoking Research Foundation, 1996:255–67.
- 74 Matsushita H. Shitsunai kūki no shitsu: Biryō yūgai seibun wo chūshin toshite [Indoor air quality: about toxic substances in small quantities]. *Nihon kyōbu rinshō* 1989;48:351–60.
- 75 Matsushita H. Kagaku busshitsu no kenkō eno eikyō [Effects of chemicals on health]. *Aratanaru seiki eno tenbō, Shizuoka kenritsu daigaku kōkai kōza yōshi shū* 1995;9:4–11.
- 76 Matsushita H. Judō kitsuen ni kansuru kisoteki kenkyū [Fundamental studies on passive smoking]. In: Mitsu Y, Agari I, Owada H, eds. *Kitsuken kagaku kenkyū no ayumi: 1996-nen kara 2005-nen*. Tokyo: Smoking Research Foundation, 2007:243–9.
- 77 Tobacco Institute of Japan. Articles of Association. 1987 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=kgxl0136> (accessed 4 Apr 2017).
- 78 David M. Guilfoile to TIJ [TIOJ] Executive Committee. Smoking & Health Subcommittee Meeting, 1986. <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=rgxl0136> (accessed 4 Apr 2017).
- 79 Donald K. Hoel to Matthew N Winokur. 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=rsl0120> (accessed 4 Apr 2017).
- 80 Tobacco Institute of Japan. The Japanese Smoking & Health Controversy: TIOJ Plan, 1987. <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=pgxl0136> (accessed 4 Apr 2017).
- 81 Mizuno et al. v. JT et al. *Yokohama District Court. Heisei-17 (wa) 141 go. Hanketsu [Ruling]*, 2010:74–85.
- 82 Bero L, Barnes DE, Hanauer P, et al. Lawyer control of the tobacco industry's external research program. The Brown and Williamson documents. *JAMA* 1995;274:241–7.
- 83 Bero LA. Tobacco industry manipulation of research. *Public Health Rep* 2005;120:200–8.
- 84 Mitsu Y, Agari I, Owada H, et al. eds. *Kitsuken kagaku kenkyū no ayumi: 1996-nen kara 2005-nen* [Progress in smoking research: 1996–2005]. Tokyo: Smoking Research Foundation, 2007.
- 85 Smoking Research Foundation. Kenkyū jōsei jigō no kibo [The scale of our research funding]. http://www.srf.or.jp/jigyō/kibo/jigyō-frame_kibo.html (accessed 18 Apr 2017).

- 86 United States v. Philip Morris et al. Civil Action No 99-2496 (GK). Amended Final Opinion issued by Judge Gladys Kessler. 2006:1279 https://www.justice.gov/sites/default/files/civil/legacy/2014/09/11/amended%20opinion_0.pdf (accessed 4 Apr 2017).
- 87 Proctor RN. *Golden Holocaust: Origins of the Cigarette Catastrophe and the Case for Abolition*. Berkeley: University of California Press, 2011.
- 88 Fred Panzer (TI) to Horace R. Kornegay (TI). Roper Proposal. 1972 <https://industrydocuments.library.ucsf.edu/tobacco/docs/#id=ltfn0108> (accessed 4 Apr 2017).
- 89 Ministry of Health Labour and Welfare. Judō kitsuen bōshi taisaku no kyōka ni tsuite [Strengthening measures against passive smoking]. 2016 <http://www.mhlw.go.jp/file/04-Houdouhappyou-10904750-Kenkouyoku-Gantaisakukenkouzoushinka/0000140971.pdf> (accessed 17 Apr 2017).
- 90 Nikkei Asian Review. Japan faces murky path to restaurant-smoking ban. 2017 <https://asia.nikkei.com/Politics-Economy/Policy-Politics/Japan-faces-murky-path-to-restaurant-smoking-ban> (accessed 10 Sep 2017).
- 91 Assunta M, Chapman S. Health treaty dilution: a case study of Japan's influence on the language of the WHO Framework Convention on Tobacco Control. *J Epidemiol Community Health* 2006;60:751–6.
- 92 Japan Health Promotion & Fitness Foundation. Hanbai honshū [The number of cigarettes sold]. 2008 <http://www.health-net.or.jp/tobacco/product/pd070000.html> (accessed 18 Apr 2017).
- 93 Tobacco Institute of Japan. Nendo betsu hanbai jisseki suii ichiran [List of annual sales records in the past]. http://www.tioj.or.jp/data/pdf/160422_02.pdf (accessed 18 Apr 2017).
- 94 Outline of establishment of foundation [sic] to promote and develop researches regarding smoking effect on a human body (n.d). <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=tphy0132> (accessed 4 Apr 2017).
- 95 Outline of the Foundation. 1986 <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=tzyw0082> (accessed 4 Apr 2017).